Pacific Fruit Express

Ice Refrigerator Cars

1906 — 1932

Prototype Specifications - Diagrams

Number 1

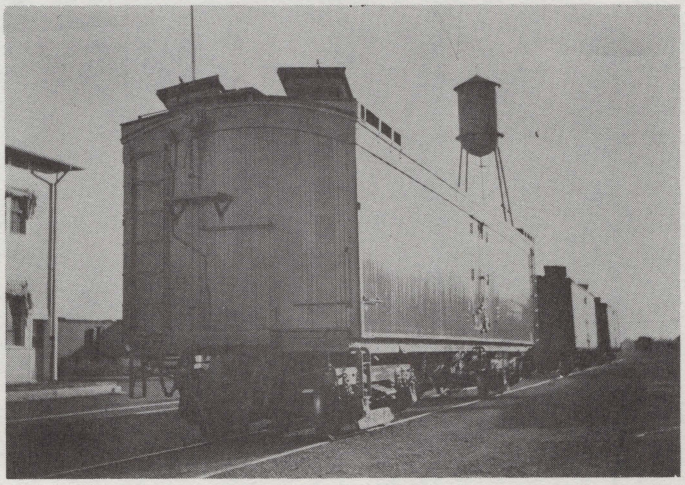
Compiled by P. Da Costa

FOWARD

IT HAS ALWAYS BEEN OUR UTMOST DESIRE TO SOMEDAY PUBLISH A PHOTO AND DIAGRAM MANUAL OF ALL TYPES OF VINTAGE RAILROAD ROLLING STOCK CIRCA-1890-1930. AFTER REVIEWING ALL OF OUR PHOTO AND DRAWING COLLECTION WHICH WE HAD COMPILED THROUGHOUT THE YEARS,WE DECIDED TO PRODUCE OUR FIRST SERIES TITLED"ICE REFRIGERATOR CARS OF THE PACIFIC FRUIT EXPRESS- 1907-1932".
YOU WILL FIND THAT THE DRAWINGS AND DIAGRAMS ARE FROM THE ORIGINAL FILES OF THE PACIFIC FRUIT EXPRESS AND SHOULD PROVE TO BE QUITE HELPFUL IN SCRATCH-BUILDING REFRIGERATOR CARS IN ALL GAUGES.YOU WILL ALSO FIND THAT THE LOGO DIAGRAMS ARE TRUE TO THE PROTOTYPE ALONG WITH THE LETTERING GUIDES.
WE HOPE THAT YOU WILL FIND MUCH ENJOYMENT WITH THESE SERIES AND THAT THEY WILL SERVE THE PURPOSE AS A WORKSHOP MANUAL.

HAPPY HIGHBALLING!

FROM THE STAFF OF: "APACHE PRESS"



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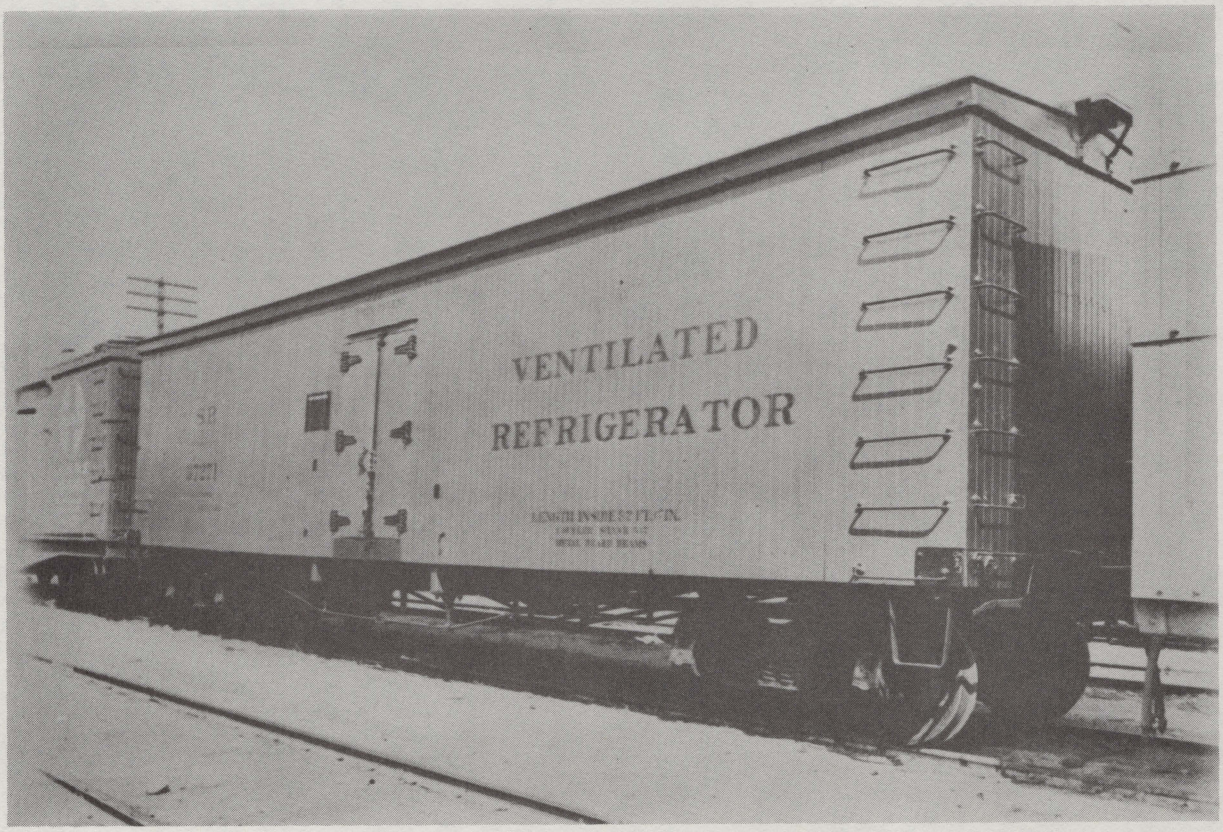
ACKNOWLEDGEMENTS

OUR STAFF WISHES TO EXPRESS OUR SINCERE THANKS AND APPRECIATIONS TO ALL THE FOLLOWING WONDERFUL PEOPLE WHO HAVE SENT IN CONTRIBUTIONS OF RARE PHOTOS,SPECIFICATIONS,DRAWINGS AND DATA FROM THEIR FILES AND COLLECTIONS. WE THANK THEM FOR GIVING US PERMISSION TO USE ALL OF THIS MATERIAL FOR ALL OF OUR SERIES SO THAT OUR WORKS CAN BE A GREAT SUCCESS. OUR MAIN GOAL IS TO SHARE ALL OF THIS WITH THE ENTIRE MODEL RAILROAD WORLD.

MR. R.F. MCKEE- GENERAL MECHANICAL AND ENGINEERING OFFICER,,
PACIFIC FRUIT EXPRESS
MR. WIL WHITTAKER- SOUTHERN PACIFIC PHOTO HISTORIAN
MR. GUY DUNSCOMBE- SOUTHERN PACIFIC, WESTERN PACIFIC PHOTO HISTORIAN
SOUTHERN PACIFIC PUBLICITY DEPARTMENT, LOS ANGELES AND SAN FRANCISCO OFFICES.



INFORMATION FOR RAILROAD MODELERS

IF YOU WISH TO ASSEMBLE KITS OR SCRATCHBUILD PACIFIC FRUIT EXPRESS CARS IN H.O. SCALE, WE SUGGEST THAT YOU CHECK WITH YOUR LOCAL HOBBYSHOPS OR WRITE DIRECTLY TO THE FOLLOWING MANUFACTURERS FOR INFORMATION OR PARTS:

MODEL DIECASTING COMPANY (ROUNDHOUSE PRODUCTS) FOR OLDTIME CARS-CIRCA 1890-1930
3811-15 W. ROSECRANS BLVD.
HAWTHORNE,CALIF. 90250

TRAIN MINIATURES — H.O. SCALE CARS CIRCA 1920
8140 CENTER STREET
LA MESA, CALIF. 90241

ATHEARN PRODUCTS — FREIGHT & PASSENGER CARS
1510 WEST 135 STREET — CIRCA 1914-1930
GARDENA, CALIF. 90249

PACIFIC FRUIT EXPRESS REEFER KITS — AUTHENTIC PROTOTYPE KITS
PROTOTYPE MODELER
44 MAPLE STREET
DANVERS,MA 01932

AHM INC. — READY TO RUN FREIGHT AND
413 E. TIOGA STREET — PASSENGER CARS CIRCA-1890-1930
PHILA., PA 19134

CHAMPION DECAL CO. — DECALS
P.O. BOX 117B
MINOT,NORTH DAKOTA 58701

WALTHERS CO. — DECALS - ROLLING STOCK KITS
5601 W. FLORIST AVE.
MILWAUKEE,WISCONSIN 53218

KRASEL INDUSTRIES INC.
1821 E. NEWPORT CIRCLE
SANTA ANA,CALIF. 92705 — DECALS

1906 Early P.F.E. Ice Refrigerator Cars 1932

Class	Series	No. Cars	Year Built	Builder	Orig. Weight	Insulation - Walls	Insulation - Roof	Insulation - Floor
R-30-1&2	1-6600	6600	1906-07	A.C.& F.	44498	1-1/2" Hairfelt	1-1/2" Hairfelt	1-1/2" Hairfelt
R-30-4	6601-7100	500	1909	Pullman	46080	1-1/2" Hairfelt	1-1/2" hairfelt	1-1/2" Hairfelt
R-30-5	7101-10121	3021	1909-11	Pullman	46254	1-1/2" Hairfelt	1-1/2" Hairfelt	1-1/2" Hairfelt
R-30-6	10122-13219	3098	1913	A.C.& F.	48050	1-1/2" Hairfelt	1-1/2" Hairfelt	1-1/2" Hairfelt
R-30-11½	13220-13279	60	1917-18	P.F.E.	48600	1-1/2" Hairfelt	1-1/2" Hairfelf	2" Cork
R-30-11	13280-14119	840	1917-18	P.F.E.	49036	1-1/2" Hairfelt	1-1/2" Hairfelt	2" Cork
R-30-11	14120-15919	1800	1917-18	A.C.& F.	50481	1-1/2" Hairfelt	1-1/2" Hairfelt	2" Cork
R-30-12	15920-16919	1000	1920-21	S.P.E.Co.	51466	1-1/2" Hairfelt	2" Hairfelt	2" Cork
R-30-12	16920-17219	300	1920	Mt.Vernon	52210	1-1/2" Hairfelt	2" Hairfelt	2" Cork
R-30-12	17220-17419	200	1920	P.C.& F.	52724	1-1/2" Hairfelt	2" Hairfelt	2" Cork
R-30-12	17420-18019	600	1920	A.C.& F.	52568	1-1/2" Hairfelt	2" Hairfelt	2" Cork
R-30-12	18020-18919	900	1920-21	Pullman	52308	1-1/2" Hairfelt	2" Hairfelt	2" Cork
R-30-13	18920-19619	700	1920	H.& B.Co.	53517	1-1/2" Hairfelt	2" Hairfelt	2" Cork
R-30-13	19620-19919	300	1920	A.C.& F.	53817	1-1/2" Hairfelt	2" Hairfelt	2" Cork
R-30-12	19920-22519	2600	1922-23	Std.Steel	52488	1-1/2" Flaxinum	2" Hairfelt	2" Cork
R-30-12	22520-23219	700	1922	Gen.Amer.	52008	1-1/2" Flaxinum	2" Hairfelt	2" Cork
R-30-12	23220-24719	1500	1923	Std.Steel	52567	1-1/2" Flaxinum	2" Hairfelt	2" Cork
R-30-12	24720-25719	1000	1923-24	Gen.Amer.	52027	1-1/2" Flaxinum	2" Hairfelt	2" Cork
R-30-12	25720-26219	500	1923	Mt.Vernon	52250	1-1/2" Flaxinum	2" Hairfelt	2" Cork
R-30-12	26220-26719	500	1923	Pullman	52424	1-1/2" Flaxinum	2" Hairfelt	2" Cork
R-30-13	26720-27219	500	1923	Pullman	53314	1-1/2" Flaxinum	2" Hairfelt	2" Cork
R-30-13	27220-28248	1030	1923	P.C.& F.	52700	1-1/2" Hairfelt	2" Hairfelt	2" Cork
R-30-12	28250-28749	500	1924	Gen.Amer.	52906	1-1/2" Flaxinum	2" Flaxinum	2-1/2" Cork
R-30-13	28750-29649	900	1924	P.C.& F.	52524	1-1/2" Hairfelt	2" Hairfelt	2-1/2" Cork
R-30-12	29650-30449	800	1924	Pullman	53109	1-1/2" Flaxinum	2" Flaxinum	2-1/2" Cork
R-30-12	30450-31249	800	1924	Std.Steel	52824	1-1/2" Flaxinum	2" Flaxinum	2-1/2" Cork
R-30-13	31250-31306	57	1924	P.C.& F.	52015	1-1/2" Hairfelt	2" Hairfelt	2-1/2" Cork
R-30-13	31307-31434	128	1925	P.C.& F.	53756	1-1/2" Flaxinum	2" Hairinsul	2-1/2" Cork
R-30-13	31435-32434	1000	1926	A.C.& F.	52445	2-3/8" Dry Zero	2-3/8" Dry Zero	2-1/2" Cork
R-30-14	32435-33434	1000	1926	Gen.Amer.	52236	1-7/8" Hairinsul	2-3/8" Hairinsul	2-1/2" Cork
R-30-13	33435-34434	1000	1926	P.C.& F.	52586	1-7/8" Hairinsul	2-3/8" Hairinsul	2-1/2" Cork
R-30-13	34435-35473	1039	1926	Pullman	53268	1-1/2" Flaxinum	2" Flaxinum	2-1/2" Cork
R-30-13	35474-36473	1000	1926	Std.Steel	53350	1-1/2" Flaxinum	2" Flaxinum	2-1/2" Cork
R-40-1	36474-36562	89	1927	P.C.& F.	56315	2" Flaxinum	2-1/2" Flaxinum	2-1/2" Cork
R-40-2	36563-37562	1000	1928	Pullman	53819	1-7/8" Flaxinum	2-3/8" Flaxinum	2-1/2" Cork
R-40-2	37563-38562	1000	1928	P.C.& F.	53793	1-7/8" Hairinsul	2-3/8" Hairinsul	2-1/2" Cork
R-40-4	38563-38912	350	1930	P.F.E.Ros.	56352	2-1/4" Hairinsul	2-3/8" Hairinsul	2-1/2" Cork
R-40-4	38913-39062	150	1930	P.F.E.	56316	2-1/4" Hairinsul	2-3/8" Dry Zero	2-1/2" Hairinsul
R-40-2	70000 Series	1443	1928-30	P.F.E.	52703	1-7/8" Hairinsul	2-3/8" Hairinsul	2-1/2" Hairinsul
R-40-4	70000 Series	510	1930-31	P.F.E.	56758	2-1/4" Hairinsul	2-3/8" Dry Zero	2-1/2" Hairinsul
R-50-1	100001-100400	400	1930	P.C.& F.	66534	2-3/4" Hairfelt	2-3/8" Hairfelt	2-1/2" Hairfelt
R-70-2	200001-200100	100	1932	P.F.E.	86587	6" Hairinsul	7" Hairinsul	7" Hairinsul

PACIFIC FRUIT EXPRESS COMPANY
DIMENSIONS OF REFRIGERATOR CARS
AS APPLIES TO ORIGINAL CONSTRUCTION ALL CARS

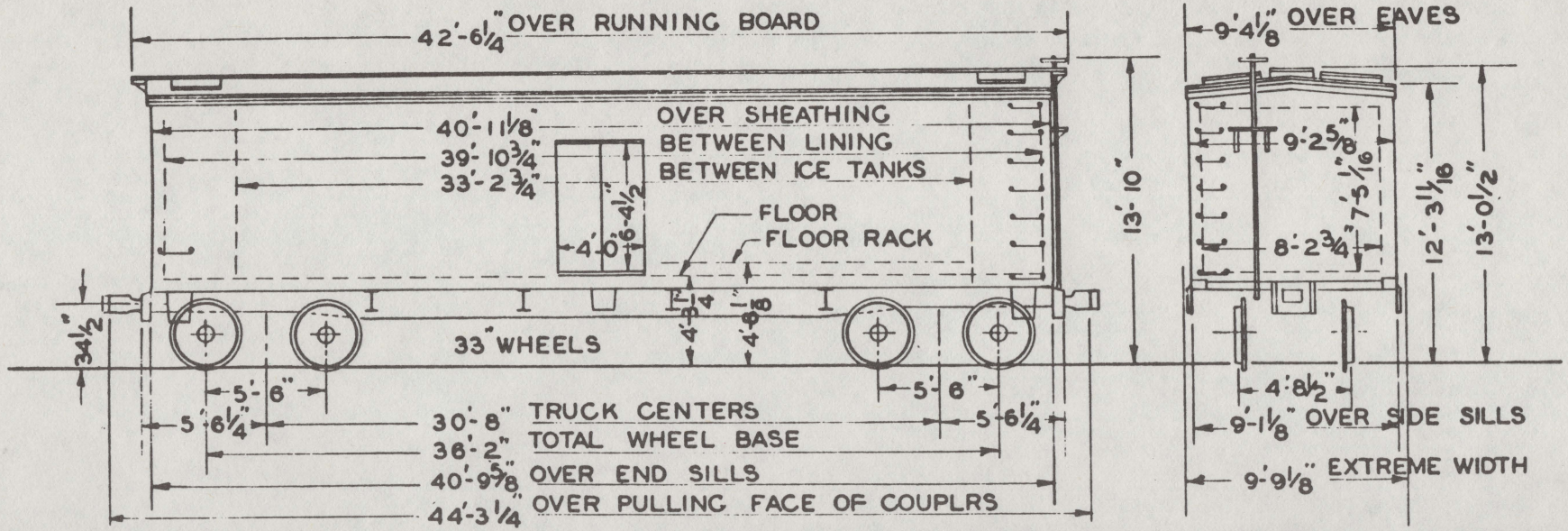
	R-30-2	R-30-4	R-30-5	R-30-6	R-30-11½	R-30-12	R-30-13
Distance, Center to Center of Body Bolster	30'8"	30'8"	30'8"	30'8"	30'8"	30'8"	30'8"
Gauge	4'8-1/2"	4'8-1/2"	4'8-1/2"	4'8-1/2"	4'8-1/2"	4'8-1/2"	4'8-1/2"
Height, Top of Floor to Ceiling	7'7-1/16"	7'5-3/16"	7'5-3/16"	7'5-3/16"	7'5-5/16"	7'5-1/16"	7'5-1/16"
" " " Floor Rack to Ceiling					7'0-5/16"	7'0-3/16"	7'0-3/16"
" " " Rail to Center of Coupler	0'34-1/2"	0'34-1/2"	0'34-1/2"	0'34-1/2"	0'34-1/2"	0'34-1/2"	0'34-1/2"
" " " Sub-Side Sill to Bottom Side Plate	8'0-15/16"	7'11-13/16"	7'11-13/16"	7'6-5/16"	7'6-5/16"	7'6-5/16"	7'6-5/16"
" " " Rail to Eaves	12'3-1/8"	12'3-11/16"	12'3-11/16"	12'3-11/16"	12'3-11/16"	12'3-7/8"	12'0-7/8"
" " " Rail to Top of Running Board	12'11-15/16"	13'0-1/2"	13'0-1/2"	13'0-1/2"	13'0-1/2"	13'1-13/16"	13'1-13/16"
" " " Rail to Top of Floor	4'1"	4'3-1/8"	4'3-1/8"	4'3-1/8"	4'3"	4'3-1/4"	4'3-1/4"
" " " Rail to Top of Floor Rack					4'7-3/4"	4'8-1/8"	4'8-1/8"
" " " Rail to Top of Brake Shaft	13'5-1/4"	13'7-1/4"	13'5-13/16"	13'7-1/4"	13'10"	13'10"	13'10"
" of Side Door Opening	5'9-7/8"	6'4-5/8"	5'9-7/8"	5'9-3/4"	5'9-7/8"	6'4-1/2"	6'4-5/8"
Length, Over Sheathing	40'9-7/8"	40'11-1/8"	40'11-1/8"	40'11-1/8"	40'11-1/8"	40'11-1/8"	40'11-1/8"
Length, Inside of Lining	39'10-3/4"	39'10-3/4"	39'10-3/4"	39'10-3/4"	39'10-3/4"	39'10-3/4"	39'10-3/4"
" Bulkheads Open							
" Between Ice Tanks	33'2-3/4"	33'2-3/4"	33'2-3/4"	33'4-1/4"	33'2-3/4"	33'2-3/4"	33'2-3/4"
" Over End Sills	41'10"	40'9-5/8"	40'9-5/8"	40'9-5/8"	40'9-5/8"	40'9-5/8"	40'9-5/8"
" Inside to Inside of Coupler Knuckles	43'9-1/4"	44'1"	43'9-1/2"	44'1"	44'1"	44'3-1/4"	44'3-1/4"
" Over Couplers	44'3-1/4"		44'3-1/2"	44'7"	44'7"	44'9-1/4"	44'9-1/4"
Width, Inside of Lining	8'2-3/4"	8'2-3/4"	8'2-3/4"	8'2-3/4"	8'2-3/4"	8'2-3/4"	8'2-3/4"
" Over Side Sills	8'5-1/4"	9'1-1/8"	9'1-1/8"	9'1-1/8"	9'1-1/8"	9'1-1/8"	9'1-1/8"
" Over Sub-Side Sills	8'11-7/8"	9'1-1/8"	9'1-1/8"	9'1-1/8"	9'1-1/8"	9'1-1/8"	9'1-1/8"
" Over Sheathing	9'1-3/8"	9'2-5/8"	9'2-5/8"	9'2-5/8"	9'2-5/8"	9'2-5/8"	9'2-5/8"
" Over Eaves	9'4-3/4"	9'6"	9'6"	9'6"	9'6"	9'4-1/8"	9'4-1/8"
" of Side Door Opening	4'0"	4'0"	4'0"	4'0"	4'0"	4'0"	4'0"
Truck Wheel Base	5'6"	5'6"	5'6"	5'6"	5'6"	5'6"	5'6"
Total wheel Base	36'2"	36'2"	36'2"	36'2"	36'2"	36'2"	36'2"

	R-30-14	R-40-1	R-40-2	R-40-4	R-40-6	R-40-8	K-50-1	RF-1	R-70-2
Distance, Center to Center of Body Bolster	30'8"	32'3"	30'8"	30'9"		30'9"	36'2-3/8"	35'6"	41'6-5/8"
Gauge	4'8-1/2"	4'8-1/2"	4'8-1/2"	4'8-1/2"		4'8-1/2"	4'8-1/2"	4'8-1/2"	4'8-1/2"
Height, Top of Floor to Ceiling	7'5-1/16"	7'5-3/4"	7'5-1/16"	7'4-7/8"		7'7-1/4"	7'3-1/4"	7'1-5/8"	7'6"
" " " Floor Rack to Ceiling	7'0-3/16"	7'0-7/8"	7'0-3/16"	7'0-1/4"		7'2-5/8"	7'0-3/8"	6'8-3/4"	6'11-1/2"
" " " Rail to Center of Coupler	0'34-1/2"	0'34-1/2"	0'34-1/2"	0'34-1/2"		0'34-1/2"	0'34-1/2"	0'35"	2'10-1/2"
" " " Sub-Side Sill to Bottom Side Plate	7'6-5/16"	8'6-1/2"	7'6-5/16"	7'6-3/8"		7'8-5/8"	7'4-5/8"		7'7-3/8"
" " " Rail to Eaves	12'7-1/8"	12'5-4/8"	12'7-1/4"	12'7-1/8"		12'9-1/2"	12'5-5/8"	12'4-3/4"	13'1-1/2"
" " " Rail to Top of Running Board	13'1-13/16"	13'4"	13'1-13/16"	13'1-7/8"		13'4-1/4"	13'0"	13'10"	13'7-15/16"
" " " Rail to Top of Floor	4'3-1/4"	4'2-1/4"	4'3-1/4"	4'3-1/2"		4'3-1/2"	4'3-1/4"	4'10-1/4"	4'7-1/2"
" " " Rail to Top of Floor Rack	4'8-1/8"	4'7-1/8"	4'8-1/8"	4'8-1/8"		4'8-1/8"	4'6-3/8"	5'3-1/8"	5'2"
" " " Rail to Top of Brake Shaft	13'10"	14'1-1/4"	13'10"				13'10"		4'9"
" of Side Door Opening	6'4-5/8"	6'5"	6'4-5/8"	6'3-5/8"		6'2-3/4"	6'9"	6'0-1/2"	6'2-3/4"
Length, Over Sheathing	40'11-1/8"	41'2-7/8"	40'11-1/8"	40'10-7/8"		40'10-15/16"	46'4-1/4"	50'1-1/2"	52'1"
" Inside of Lining	39'10-3/4"	39'11-7/8"	39'10-3/4"	39'9-3/8"		39'9-3/8"	45'1-3/4"	49'0-1/8"	
" Bulkheads Open							44'5"		50'5"
" Between Ice Tanks	33'2-3/4"	33'2-3/4"	33'2-3/4"	33'2-3/4"		33'2-3/4"	37'6"	41'6-1/8"	42'6"
" Over End Sills	40'9-5/8"	41'1-1/4"	40'9-5/8"	40'9-3/8"		40'9-3/8"	46'2-3/4"	50'0"	
" Inside to Inside of Coupler Knuckles	44'3-1/4"	44'9"	44'3-1/4"	44'3"		44'3"	49'8-3/8"	52'10-1/2"	55'0-5/8"
" Over Couplers	44'9-1/4"	45'3"	44'9-1/4"	44'9"		44'9"	50'2-3/8"		55'5-3/4"
Width, Inside of Lining	8'2-3/4"	8'2-3/4"	8'2-3/4"	8'2-3/4"		8'2-3/4"	8'11"	8'8-3/4"	8'10"
" Over Side Sills	9'1-1/8"	8'9"	9'1-1/8"	9'1-1/8"		9'1-1/8"	9'9-1/2"	9'0"	9'9-3/4"
" Over Sub-Side Sills	9'1-1/8"	8'9"	9'1-1/8"	9'1-1/8"		9'1-1/8"	9'9-1/2"	9'8-1/8"	9'9-3/4"
" Over Sheathing	9'2-5/8"	9'5"	9'2-5/8"	9'4-1/4"		9'4-1/4"	10'1-1/2"	9'9-5/8"	10'1-1/2"
" Over Eaves	9'4-1/8"	9'5-1/8"	8'4-1/8"	9'5-3/4"		9'5-3/4"	10'3-1/2"	10'0-7/8"	10'3"
" of Side Door Opening	4'0"	5'0"	4'0"	4'0"		4'0"	4'0	5'0"	4'0"
Truck Wheel Base	5'6"	5'6"	5'6"	5'6"		5'6"	5'6"	8'0"	5'8"
Total wheel Base	36'2"	37'9"	36'2"	36'3"		36'3"	41'8-3/8"	43'6"	47'2-5/8"

CLASS
R-30-2-13

REFRIGERATOR CAR
50000 LBS. CAPACITY

CAR NO'S
I- 6600



LENGTH INSIDE OF LINING	39'-10 3/4"
" BETWEEN ICE TANKS	33'- 2 3/4"
WIDTH INSIDE OF LINING	8'- 2 3/4"
HEIGHT TOP OF FLOOR TO CEILING	7'- 5 1/16"
CU. CAP. BETWEEN ICE TANKS ABOVE FLOOR RACK	1918 CU. FT.
CAP. OF BOTH ICE TANKS	10600 LBS.
WT OF EACH TRUCK	6500 LBS.
LT. WT. OF CAR COMPLETE	51800 LBS.
UNDERFRAME	R. R. DESIGN BUILT UP TYPE
SUPER STRUCTURE	WOOD SHEATHING POST & BRACE

CAR BUILDER	NO. CAR BUILT	YEAR BUILT
P.F.E. CO.	2500	1925-26 27-28

CARS EQUIPPED WITH R. R. DESIGN BUILT UP TYPE UNDERFRAMES IN 1925-1928

REFERENCE DRAWINGS	
UNDERFRAME (R-30-13)	C-3525
BODY (R-30-12)	C-2826
ROOF CONSTR. (R-30-11)	C-2555

AXLE - JOURNALS	4 1/4" X 8"
AIR BRAKE	KC-1012
BRAKE BEAMS SUPP. & SLI. CHAIRS	CRECO #3
COUPLERS	TYPE -D
" YOKES	CAST STEEL
" RELEASE RIGGING	CARMER
DRAFT GEARS	FRICTION
INSULATION SIDE & END WALLS	HAIRINSUL
" ROOF	"
" FLOOR	CORK
" DOOR	LA FLARE
ROOF	FLEXIBLE OUTSIDE METAL
SIDE BEARINGS	MINER GRAV. ROLLER
TRUCK BOLSTERS	SIMPLEX
" SIDE FRAMES	CAST STEEL
WHEELS	CAST IRON 33"
COUPLER CENTERING DEVICE	U.M.P.

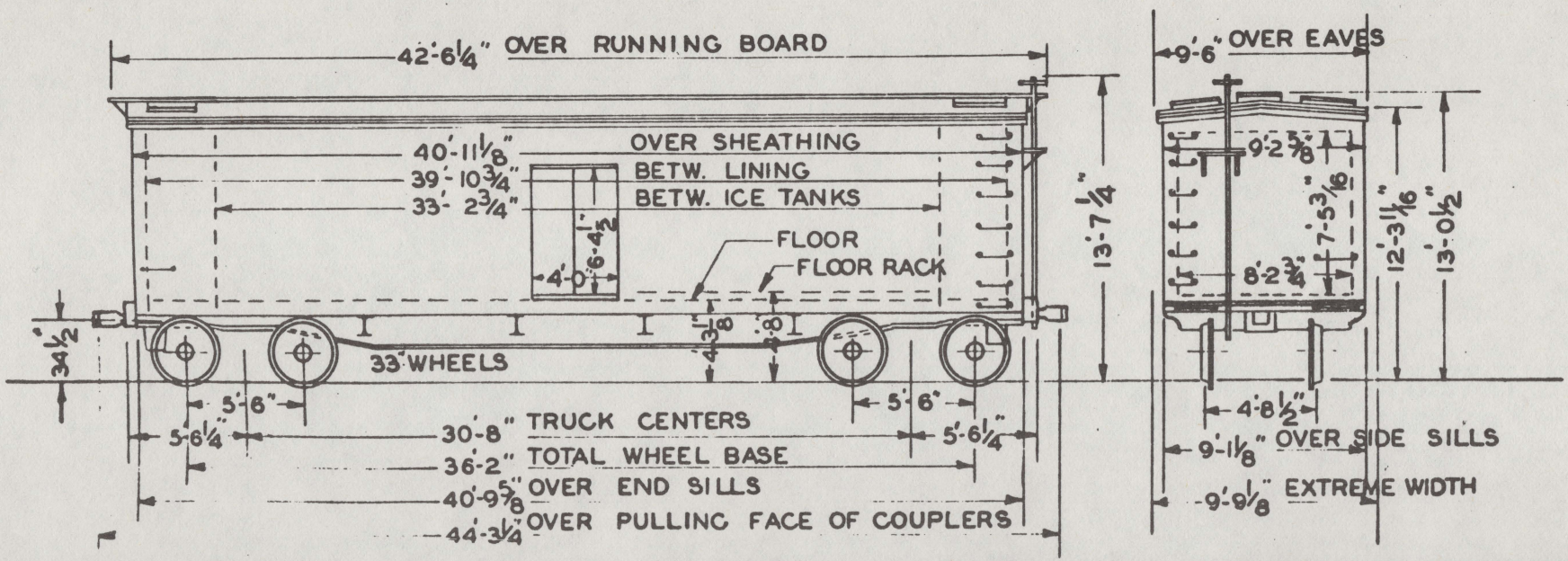
UNION PACIFIC RAILROAD CO.
RESEARCH AND
MECHANICAL STANDARDS

ISSUE	DATE	DIAGRAM R-1
		DRAWN 11-7-42

CLASS
R-30-5

REFRIGERATOR CAR
50000 LBS. CAPACITY

CAR NO'S
7101 - 10121



LENGTH INSIDE OF LINING	39'-10 3/4"
" BETWEEN ICE TANKS	33'-2 3/4"
WIDTH INSIDE OF LINING	8'-2 3/4"
HEIGHT TOP OF FLOOR TO CEILING	7'-5 3/16"
CU. CAP. BETWEEN ICE TANKS ABOVE FLOOR RACK	1918 CU.FT.
CAP. OF BOTH ICE TANKS	10600 LBS.
WT. OF EACH TRUCK	6500 LBS.
LT. WT. OF CAR COMPLETE	52700 LBS.
UNDERFRAME	BETTENDORF
SUPERSTRUCTURE	WOOD SHEATHING, POSTS & BRACES

CAR BUILDER	NO. CARS BUILT	YEAR BUILT
PULLMAN CO.	3021	1909-11

9378 IS EQUIPPED WITH STEEL POST & BRACES

REFERENCE DRAWINGS	
GENERAL DESIGN	C-1531
BRAKE ARRGT.	C-1711
UNDERFRAME	C-1476

AXLE - JOURNALS	4 1/4" X 8"
AIR BRAKE	KC 1012
BRAKE BEAMS	CRECO #3
COUPLERS	TYPE-D
" YOKES	CAST STEEL
" RELEASE RIGGING	CARMER
DRAFT GEARS	FRICTION
INSULATION-SIDE & END WALLS	HAIRINSUL
" ROOF	"
" FLOOR	"
" DOOR	LA FLARE
ROOF	BOARD
SIDE BEARINGS	MINER GRAV. ROLLER
TRUCK BOLSTERS	SIMPLEX
" SIDE FRAMES	CAST STEEL
" ROLLER DEVICE	BARBER
WHEELS	CAST IRON 33"

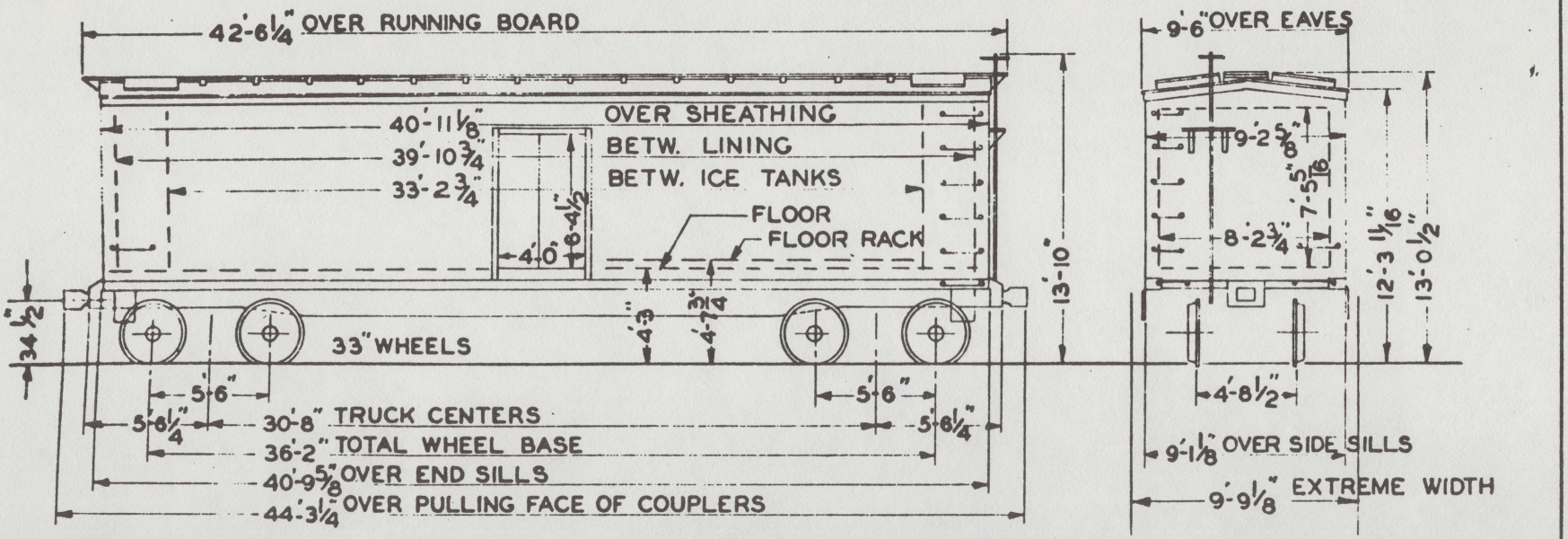
UNION PACIFIC RAILROAD CO.
RESEARCH AND
MECHANICAL STANDARDS

						ISSUE DATE	DIAGRAM R-2
							DRAWN 11-7-42

CLASS
R-30-11

REFRIGERATOR CAR
65000 LBS. CAPACITY

CAR NO'S.
13220-15919
(SEE ALSO DIAGRAM R-35)



LENGTH INSIDE OF LINING	39'-10 3/4"
" BETWEEN ICE TANKS	33'-2 3/4"
WIDTH INSIDE OF LINING	8'-2 3/4"
HEIGHT TOP OF FLOOR TO CEILING	7'-5 5/16"
CU. CAP. BETWEEN ICE TANKS ABOVE FLOOR RACK	1918 CU. FT.
CAP. OF BOTH ICE TANKS	10600 LBS.
WT. OF EACH TRUCK	6660 LBS.
LT. WT. OF CAR COMPLETE	51700 LBS.
UNDERFRAME	BETTENDORF
SUPERSTRUCTURE	WOOD SHEATHING POSTS & BRACES

CAR BUILDER	NO. CARS BUILT	YEAR BUILT
P.F.E. CO. & A.C. & F. CO.	2700	1917-18

REFERENCE DRAWINGS	
GENERAL DESIGN	C-2555
BRAKE ARRGT.	C-1711
UNDERFRAME	C-2340

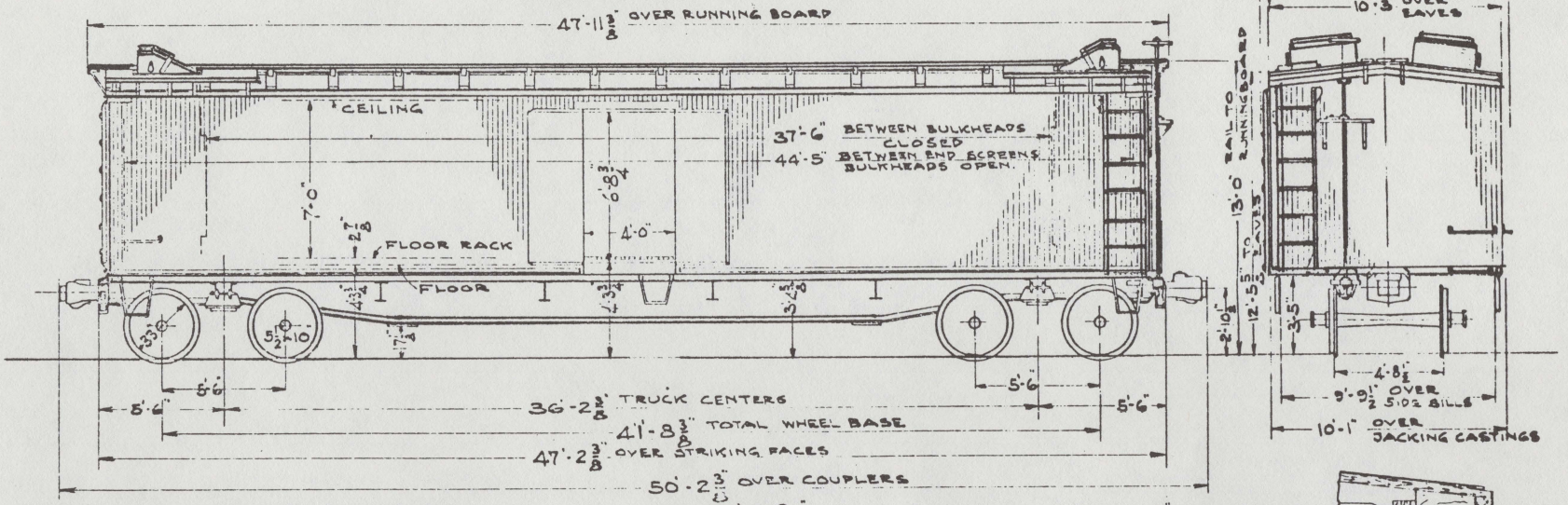
AXLE - JOURNALS	5" X 9"
AIRBRAKE	KC-1012
BRAKE BEAMS	CRECO # 2+
COUPLERS	TYPE-D
" YOKES	CAST STEEL
" RELEASE RIGGING	CARMER
" CENTERING DEVICE	IMPERIAL
DRAFT GEARS	FRICTION
INSULATION-SIDE & END WALLS	HAIRFELT
" ROOF	"
" FLOOR	CORK
" DOOR	LA FLARE
ROOF	BOARD
SIDE BEARINGS	MINER
TRUCK BOLSTERS	CAST STEEL
" SIDE FRAMES	" "
WHEELS	CAST IRON 33"

UNION PACIFIC RAILROAD CO.
RESEARCH AND
MECHANICAL STANDARDS

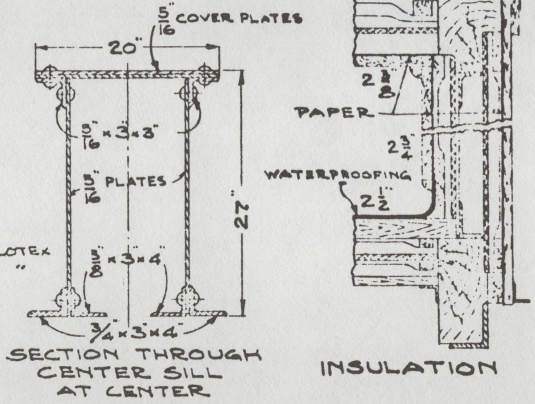
						ISSUE DATE	DIAGRAM R-5
							DRAWN

PACIFIC FRUIT EXPRESS COMPANY
REFRIGERATOR CAR
CLASS R-50-1

SERIES: 100001—100400.



LENGTH INSIDE OF LINING	45'-1 3/4"
WIDTH " " "	8'-11"
" BETWEEN BULKHEAD DOORS WHEN OPEN	7'-10"
CLEAR LENGTH OF FULL WIDTH (8'-11") WITH BULKHEADS OPEN	29'-0"
CUBIC CAPACITY BETWEEN BULKHEADS ABOVE FLOOR RACKS	2340 CUB. FEET.
TYPE OF ICE TANKS	EQUIPCO, SWING TYPE
CAPACITY OF BOTH ICE TANKS	12350 LBS.
LENGTH OF ICE TANKS	2'-11 1/2"
WIDTH OF ICE TANKS	2'-2 1/4"
HEIGHT " " "	6'-6 1/4"
HEIGHT OF ICE TANKS - ICE GRATES DOWN (BULKHEADS OPEN)	6'-10"
LENGTH INSIDE TO INSIDE OF COUPLER KNUCKLES	43'-8 3/4"
ACTUAL DOOR OPENING - FLOOR RACKS DOWN AND DOORS SWUNG WIDE	5'-9 5/8" x 6'-5 7/8"
INSULATION - FLOOR	HAIR-FELT, CELOTEX - INSULITE
" - WALLS	HAIRFELT - FLAXLINUM, INSULITE - CELOTEX
" - ROOF	" "
ROOF - OUTSIDE METAL FLEXIBLE	MURPHY - NATIONAL
AIR BRAKE	NEW-YORK 10" x 12"
HAND BRAKE (POWER)	URECO (GEARED TYPE)
DRAFT GEARS	NATIONAL M-17
LIGHT WEIGHT OF EACH A.R.A. TRUCK	7300 LBS.
WEIGHT OF UNDERFRAME	
LIGHT WEIGHT OF CAR (AVERAGE)	66520 LBS.
NUMBER CARS BUILT	400
YEAR BUILT	1930

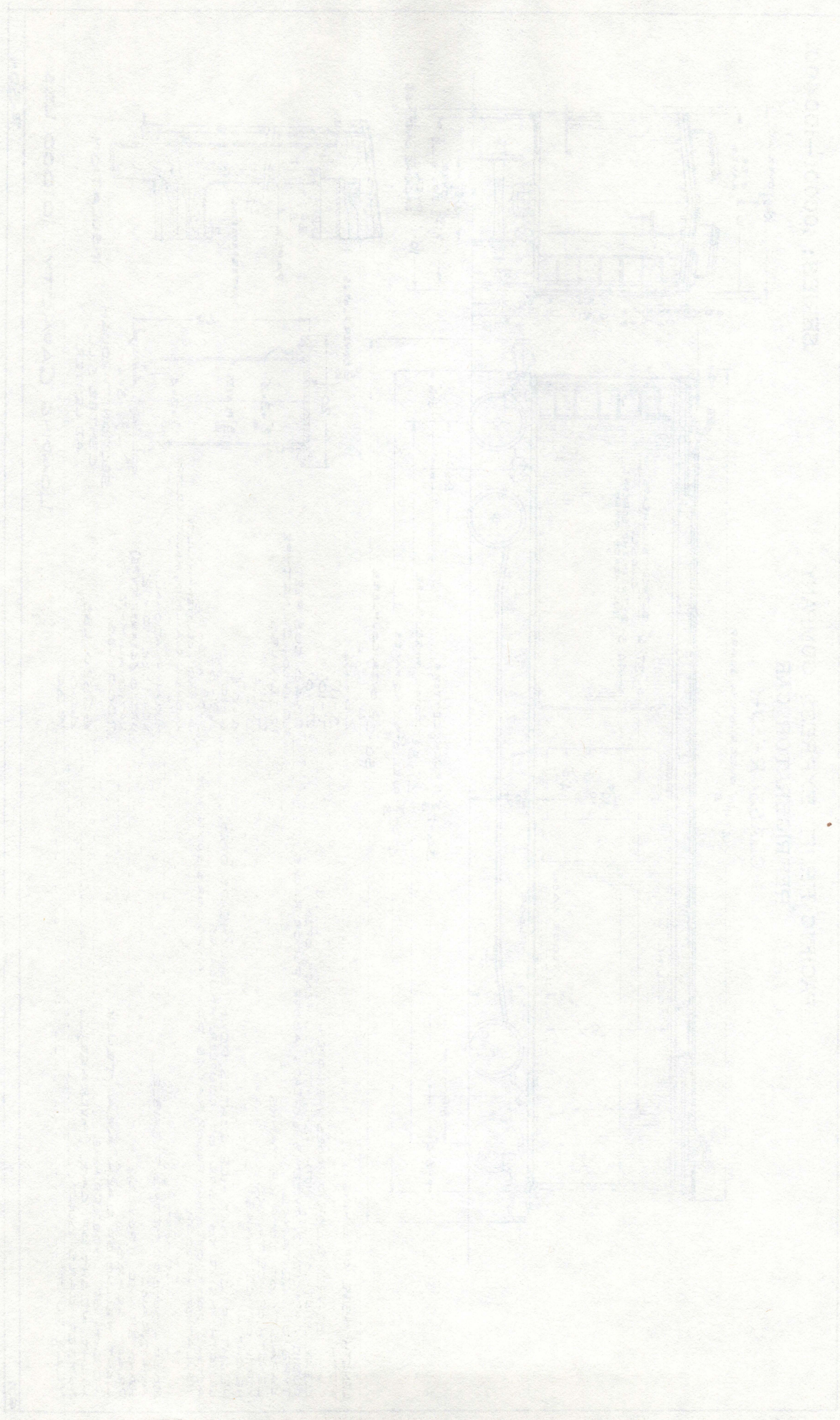


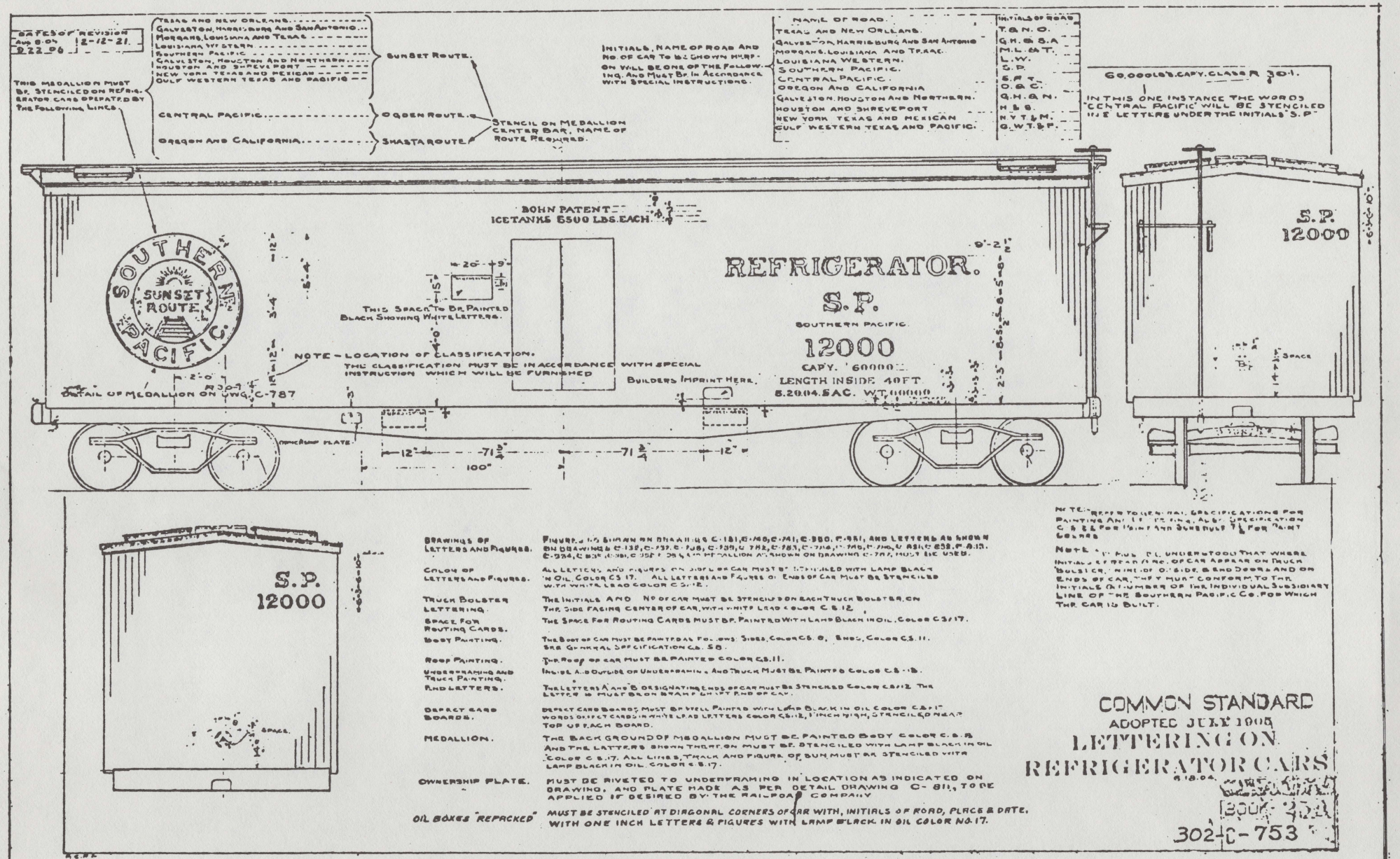
SECTION THROUGH CENTER SILL AT CENTER

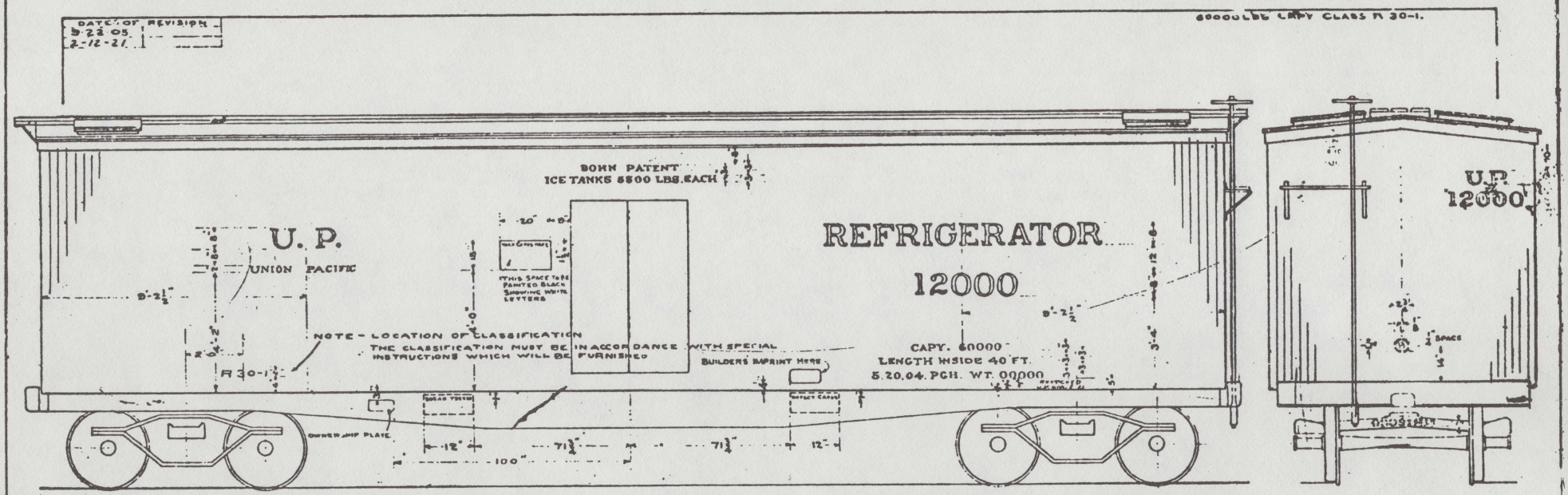
INSULATION

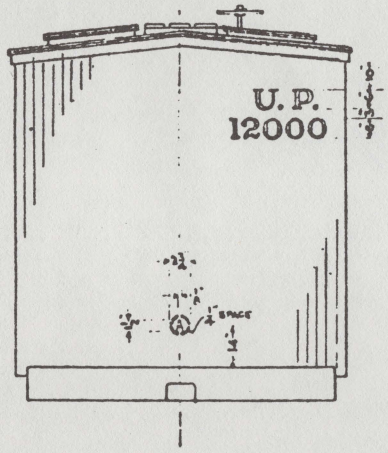
LOADING CAPACITY: 101000 LBS.

C.T. R-50-1




DATES OF REVISION
AUG 8-04
2-12-21
9-22-96
THIS MEDALLION MUST BE STENCILED ON REFRIGERATOR CARS OPERATED BY THE FOLLOWING LINES.
TEXAS AND NEW ORLEANS
GALVESTON, HARRISBURG AND SAN ANTONIO
MORGANS, LOUISIANA AND TEXAS
LOUISIANA, WESTERN
SOUTHERN PACIFIC
GALVESTON, HOUSTON AND NORTHERN
HOUSTON AND SHREVEPORT
NEW YORK, TEXAS AND MEXICAN
GULF WESTERN TEXAS AND PACIFIC
SUNSET ROUTE.
CENTRAL PACIFIC
OGDEN ROUTE.
OREGON AND CALIFORNIA
SHASTA ROUTE.
STENCIL ON MEDALLION CENTER BAR, NAME OF ROUTE REQUIRED.
INITIALS, NAME OF ROAD AND NO. OF CAR TO BE SHOWN MURPHY ON WILL BE ONE OF THE FOLLOWING, AND MUST BE IN ACCORDANCE WITH SPECIAL INSTRUCTIONS.
NAME OF ROAD
TEXAS AND NEW ORLEANS
GALVESTON HARRISBURG AND SAN ANTONIO
MORGANS LOUISIANA AND TEXAS
LOUISIANA WESTERN
SOUTHERN PACIFIC
CENTRAL PACIFIC
OREGON AND CALIFORNIA
GALVESTON HOUSTON AND NORTHERN
HOUSTON AND SHREVEPORT
NEW YORK TEXAS AND MEXICAN
GULF WESTERN TEXAS AND PACIFIC
INITIALS OF ROAD
T.&N.O.
G.H.&S.A.
M.L.&T.
L.W.
S.P.
S.P.T.
O.&C.
G.H.&N.
H.&S.
N.Y.T.&M.
G.W.T.&P.
60,000LBS. CAPY. CLASS R 30-1.
IN THIS ONE INSTANCE THE WORDS "CENTRAL PACIFIC" WILL BE STENCILED IN E LETTERS UNDER THE INITIALS "S.P."
SOUTHERN PACIFIC
SUNSET ROUTE
DETAIL OF MEDALLION ON DWG. C-787
BOHN PATENT
ICE TANKS 6500 LBS. EACH
THIS SPACE TO BE PAINTED BLACK SHOWING WHITE LETTERS.
NOTE - LOCATION OF CLASSIFICATION.
THE CLASSIFICATION MUST BE IN ACCORDANCE WITH SPECIAL INSTRUCTION WHICH WILL BE FURNISHED
BUILDERS IMPRINT HERE.
REFRIGERATOR.
S.P.
SOUTHERN PACIFIC
12000
CAPY. 60000
LENGTH INSIDE 40FT.
5.2004.5 AC. WT. 60000
TRUCK PLATE
12"
71 3/4"
71 3/4"
12"
100"
S.P.
12000
3 SPACE
S.P.
12000
3 SPACE
NOTE - REFER TO GENERAL SPECIFICATIONS FOR PAINTING AND LETTERING, ALSO SPECIFICATION C.S.B.& FOR PRINT AND SURFACE PAINT COLORS.
NOTE - IT MUST BE UNDERSTOOD THAT WHERE INITIALS OF ROAD AND NO. OF CAR APPEAR ON TRUCK BOLSTERS, SIDE OF SIDE, & END DOORS AND ON ENDS OF CAR, THEY MUST CONFORM TO THE INITIALS & NUMBER OF THE INDIVIDUAL SUBSIDIARY LINE OF THE SOUTHERN PACIFIC CO. FOR WHICH THE CAR IS BUILT.
DRAWINGS OF LETTERS AND FIGURES.
FIGURES AS SHOWN ON DRAWINGS C-181, C-760, C-761, C-880, C-881, AND LETTERS AS SHOWN ON DRAWINGS C-138, C-139, C-708, C-709, C-782, C-783, C-714, C-715, C-716, C-717, C-718, C-719, C-934, C-935, C-981, C-982 & C-984 OF MEDALLION AS SHOWN ON DRAWING C-787, MUST BE USED.
COLOR OF LETTERS AND FIGURES.
ALL LETTERS AND FIGURES ON SIDES OF CAR MUST BE STENCILED WITH LAMP BLACK IN OIL, COLOR C.S. 17. ALL LETTERS AND FIGURES ON ENDS OF CAR MUST BE STENCILED WITH WHITE LEAD COLOR C.S. 12.
TRUCK BOLSTER LETTERING.
THE INITIALS AND NO. OF CAR MUST BE STENCILED ON EACH TRUCK BOLSTER, ON THE SIDE FACING CENTER OF CAR, WITH WHITE LEAD COLOR C.S. 12.
SPACE FOR ROUTING CARDS.
THE SPACE FOR ROUTING CARDS MUST BE PAINTED WITH LAMP BLACK IN OIL, COLOR C.S. 17.
BODY PAINTING.
THE BODY OF CAR MUST BE PAINTED AS FOLLOWS: SIDES, COLOR C.S. 8, ENDS, COLOR C.S. 11. SEE GENERAL SPECIFICATION C.S. 58.
ROOF PAINTING.
THE ROOF OF CAR MUST BE PAINTED COLOR C.S. 11.
UNDERFRAMING AND TRUCK PAINTING.
INSIDE AND OUTSIDE OF UNDERFRAMING AND TRUCK MUST BE PAINTED COLOR C.S. 15.
END LETTERS.
THE LETTERS A AND B DESIGNATING ENDS OF CAR MUST BE STENCILED COLOR C.S. 12. THE LETTER B MUST BE ON STRAP AT LEFT END OF CAR.
DEFECT CARD BOARDS.
DEFECT CARD BOARDS MUST BE WELL PAINTED WITH LAMP BLACK IN OIL COLOR C.S. 17. WORDS DEFECT CARDS IN WHITE LEAD LETTERS COLOR C.S. 12, 1 INCH HIGH, STENCILED NEAR TOP OF EACH BOARD.
MEDALLION.
THE BACK GROUND OF MEDALLION MUST BE PAINTED BODY COLOR C.S. 8 AND THE LETTERS SHOWN THEREON MUST BE STENCILED WITH LAMP BLACK IN OIL COLOR C.S. 17. ALL LINES, SHADE AND FIGURE OF SUN MUST BE STENCILED WITH LAMP BLACK IN OIL, COLOR C.S. 17.
OWNERSHIP PLATE.
MUST BE RIVETED TO UNDERFRAMING IN LOCATION AS INDICATED ON DRAWING, AND PLATE MADE AS PER DETAIL DRAWING C-811, TO BE APPLIED IF DESIRED BY THE RAILROAD COMPANY
OIL BOXES "REPACKED"
MUST BE STENCILED AT DIAGONAL CORNERS OF CAR WITH, INITIALS OF ROAD, PLACE & DATE, WITH ONE INCH LETTERS & FIGURES WITH LAMP BLACK IN OIL COLOR NO. 17.
COMMON STANDARD
ADOPTED JUNE 1909
LETTERING ON
REFRIGERATOR CARS
6.18.04.
302-C-753





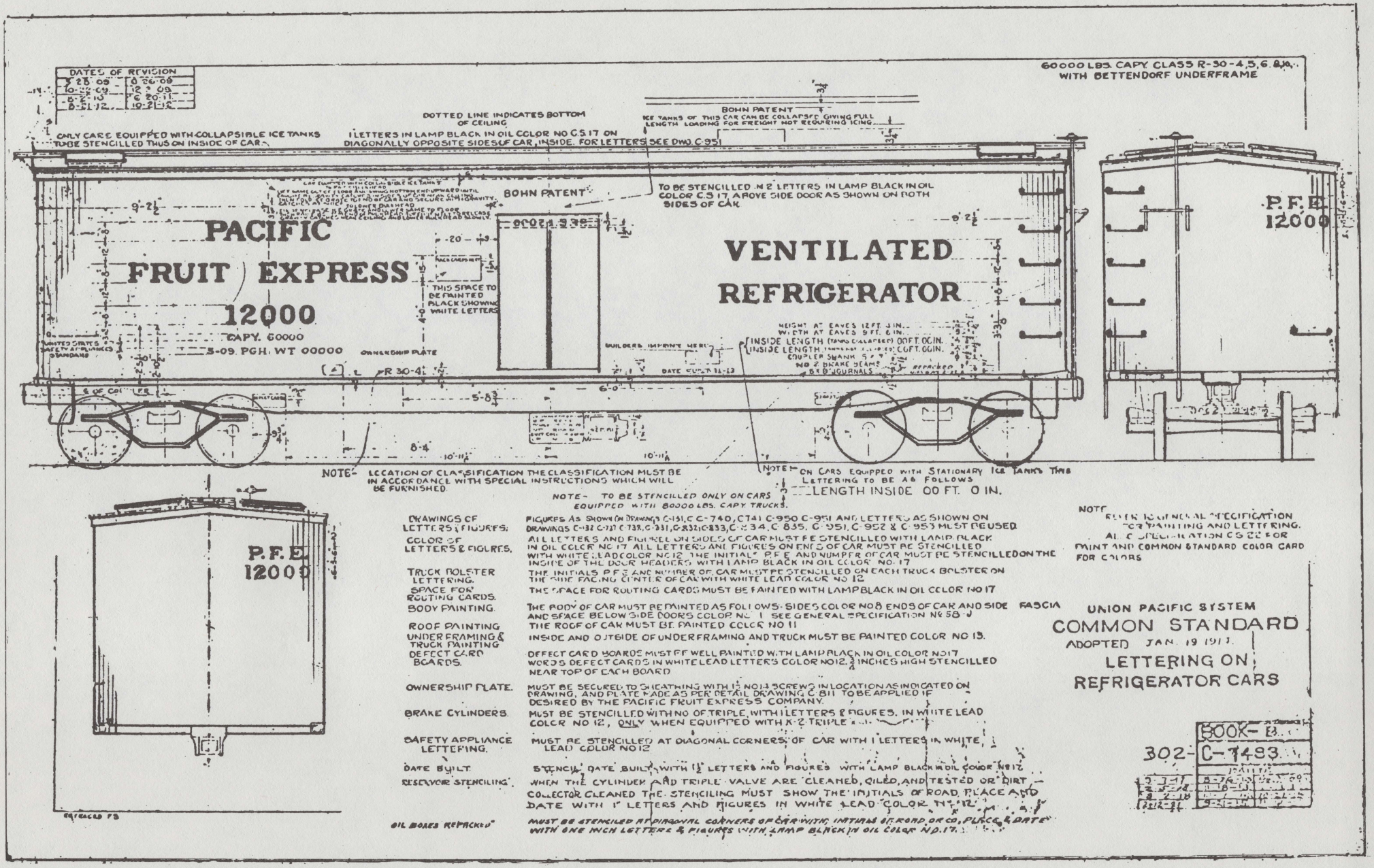
DRAWINGS OF LETTERS AND FIGURES	FIGURES AS SHOWN ON DRAWINGS C-131, C-740, C-741, C-950, C-951, AND LETTERS AS SHOWN ON DRAWINGS C-132, C-737, C-738, C-739, C-831, C-832, C-833, C-834, C-835, C 951, C-952, AND C-953, MUST BE USED.
COLOR OF LETTERS AND FIGURES	ALL LETTERS AND FIGURES ON SIDES OF CAR MUST BE STENCILED WITH LAMP BLACK IN OIL, COLOR C.S. 17. ALL LETTERS AND FIGURES ON ENDS OF CAR MUST BE STENCILED WITH WHITE LEAD COLOR C.S. 12.
TRUCK BOLSTER LETTERING	THE INITIALS U.P. AND No OF CAR MUST BE STENCILED ON EACH TRUCK BOLSTER ON THE SIDE FACING CENTER OF CAR, WITH WHITE LEAD COLOR C.S. 12
SPACE FOR ROUTING CARDS.	THE SPACE FOR ROUTING CARDS MUST BE PAINTED WITH LAMP BLACK IN OIL COLOR C.S. 17.
BODY PAINTING	THE BODY OF CAR MUST BE PAINTED AS, FOLLOWS: SIDES, COLOR C.S. 8, ENDS, COLOR C.S. 11. SEE GENERAL SPECIFICATION C.S. 58.
ROOF PAINTING	THE ROOF OF CAR MUST BE PAINTED COLOR C.S. 11.
UNDERFRAMING AND TRUCK PAINTING	INSIDE AND OUTSIDE OF UNDERFRAMING AND TRUCK MUST BE PAINTED COLOR C.S. 13.
END LETTERS.	THE LETTERS 'A' AND 'B' DESIGNATING ENDS OF CAR MUST BE STENCILED COLOR C.S. 12. THE LETTER 'B' MUST BE ON BRAKE SHAFT END OF CAR.
DEFECT CARD BOARDS.	DEFECT CARD BOARDS MUST BE WELL PAINTED WITH LAMP BLACK IN OIL COLOR C.S. 17. WORDS "DEFECT CARDS" IN WHITE LEAD LETTERS COLOR C.S. 12, 1" INCH HIGH, STENCILED NEAR TOP OF EACH BOARD.
OWNERSHIP PLATE	MUST BE RIVETED TO UNDERFRAMING IN LOCATION AS INDICATED ON DRAWING, AND PLATE MADE AS PER DETAIL DRAWING C-811, TO BE APPLIED IF DESIRED BY THE RAILROAD COMPANY.
OIL BOXES "REPACKED"	MUST BE STENCILED AT DIAGONAL CORNERS OF CAR WITH, INITIALS OF ROAD OR CO. PLACE & DATE WITH ONE INCH LETTERS & FIGURES, WITH LAMP BLACK IN OIL COLOR No 17

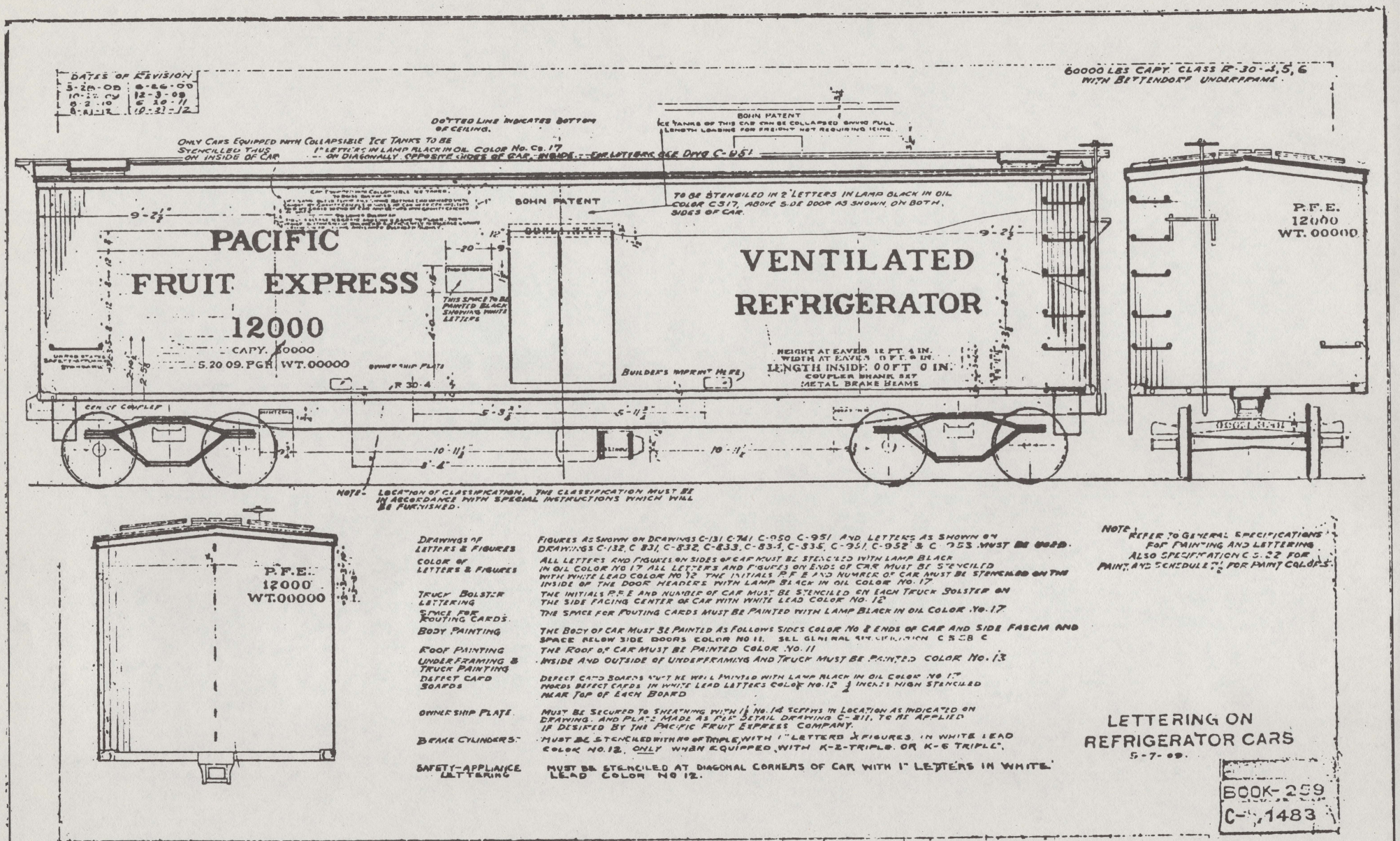
NOTE: REFER TO GENERAL SPECIFICATIONS ¼ FOR PAINTING AND LETTERING. ALSO SPECIFICATION C.S. 22 FOR PAINT AND SCHEDULE 7½ FOR PAINT COLORS.

COMMON STANDARD
ADOPTED JULY 1906
LETTERING ON
REFRIGERATOR CARS
5.22.04.

UNION PACIFIC
3800-259
C-752

RJD C.S.S.


DATES OF REVISION
3-28-08
10-22-09
8-2-10
8-21-12
10-26-09
12-2-09
6-20-11
10-2-12
60000 LBS. CAPY CLASS R-30-4,5,6 &10
WITH BETTENDORF UNDERFRAME
ONLY CARS EQUIPPED WITH COLLAPSIBLE ICE TANKS TO BE STENCILLED THUS ON INSIDE OF CAR.
DOTTED LINE INDICATES BOTTOM OF CEILING
LETTERS IN LAMP BLACK IN OIL COLOR NO C.S 17 ON DIAGONALLY OPPOSITE SIDES OF CAR, INSIDE. FOR LETTERS SEE DWG. C-951
BOHN PATENT
ICE TANKS OF THIS CAR CAN BE COLLAPSED GIVING FULL LENGTH LOADING FOR FREIGHT NOT REQUIRING ICING.
BOHN PATENT
TO BE STENCILLED N 2 LETTERS IN LAMP BLACK IN OIL COLOR C.S 17, ABOVE SIDE DOOR AS SHOWN ON BOTH SIDES OF CAR.
PACIFIC
FRUIT EXPRESS
12000
CAPY. 60000
5-09. PGH. WT 00000
THIS SPACE TO BE PAINTED BLACK SHOWING WHITE LETTERS
VENTILATED
REFRIGERATOR
P.F.E.
12000
R 30-4
NOTE- LOCATION OF CLASSIFICATION THE CLASSIFICATION MUST BE IN ACCORDANCE WITH SPECIAL INSTRUCTIONS WHICH WILL BE FURNISHED.
NOTE- ON CARS EQUIPPED WITH STATIONARY ICE TANKS THIS LETTERING TO BE AS FOLLOWS
LENGTH INSIDE 00 FT. 0 IN.
NOTE- TO BE STENCILLED ONLY ON CARS EQUIPPED WITH 80000 LBS. CAPY TRUCKS.
P.F.E.
12000
OIL BOXES REPACKED
DRAWINGS OF LETTERS & FIGURES.
FIGURES AS SHOWN ON DRAWINGS C-131, C C-740, C741 C-950 C-951 AND LETTERS AS SHOWN ON DRAWINGS C-132 C-737 C-738, C-931, C-932 C-833, C-834, C-835, C-951, C-952 & C-953 MUST BE USED.
COLOR OF LETTERS & FIGURES.
ALL LETTERS AND FIGURES ON SIDES OF CAR MUST BE STENCILLED WITH LAMP BLACK IN OIL COLOR NO 17 ALL LETTERS AND FIGURES ON ENDS OF CAR MUST BE STENCILLED WITH WHITE LEAD COLOR NO 12. THE INITIALS P.F.E AND NUMBER OF CAR MUST BE STENCILLED ON THE INSIDE OF THE DOOR HEADERS WITH LAMP BLACK IN OIL COLOR NO. 17
TRUCK BOLSTER LETTERING.
THE INITIALS P.F.E AND NUMBER OF CAR MUST BE STENCILLED ON EACH TRUCK BOLSTER ON THE SIDE FACING CENTER OF CAR WITH WHITE LEAD COLOR NO 12
SPACE FOR ROUTING CARDS.
THE SPACE FOR ROUTING CARDS MUST BE PAINTED WITH LAMP BLACK IN OIL COLOR NO 17
BODY PAINTING.
THE BODY OF CAR MUST BE PAINTED AS FOLLOWS- SIDES COLOR NO 8 ENDS OF CAR AND SIDE FASCIA AND SPACE BELOW SIDE DOORS COLOR NO. 1 SEE GENERAL SPECIFICATION No 58-J
ROOF PAINTING
THE ROOF OF CAR MUST BE PAINTED COLOR NO 11
UNDER FRAMING & TRUCK PAINTING
INSIDE AND OUTSIDE OF UNDER FRAMING AND TRUCK MUST BE PAINTED COLOR NO 13.
DEFECT CARD BOARDS.
DEFECT CARD BOARDS MUST BE WELL PAINTED WITH LAMP BLACK IN OIL COLOR NO 17 WORDS DEFECT CARDS IN WHITE LEAD LETTERS COLOR NO 12. 3/4 INCHES HIGH STENCILLED NEAR TOP OF EACH BOARD
OWNERSHIP PLATE.
MUST BE SECURED TO SHEATHING WITH 12 NO 13 SCREWS IN LOCATION AS INDICATED ON DRAWING, AND PLATE MADE AS PER DETAIL DRAWING C 811 TO BE APPLIED IF DESIRED BY THE PACIFIC FRUIT EXPRESS COMPANY.
BRAKE CYLINDERS.
MUST BE STENCILLED WITH NO OF TRIPLE, WITH LETTERS & FIGURES. IN WHITE LEAD COLOR NO 12, ONLY WHEN EQUIPPED WITH K-2 TRIPLE
SAFETY APPLIANCE LETTERING.
MUST BE STENCILLED AT DIAGONAL CORNERS OF CAR WITH LETTERS IN WHITE LEAD COLOR NO 12
DATE BUILT.
STENCIL DATE BUILT WITH 1 1/2 LETTERS AND FIGURES WITH LAMP BLACK IN OIL COLOR NO 12
RESERVOIR STENCILING.
WHEN THE CYLINDER AND TRIPLE VALVE ARE CLEANED, OILED, AND TESTED OR DIRT COLLECTOR CLEANED THE STENCILING MUST SHOW THE INITIALS OF ROAD, PLACE AND DATE WITH 1" LETTERS AND FIGURES IN WHITE LEAD COLOR NO 12.
MUST BE STENCILLED AT DIAGONAL CORNERS OF CAR WITH INITIALS OF ROAD OR CO., PLACE & DATE WITH ONE INCH LETTERS & FIGURES WITH LAMP BLACK IN OIL COLOR NO. 17.
NOTE- REFER TO GENERAL SPECIFICATION FOR PAINTING AND LETTERING. ALSO SPECIFICATION CS 22 FOR PAINT AND COMMON STANDARD COLOR CARD FOR COLORS
UNION PACIFIC SYSTEM
COMMON STANDARD
ADOPTED JAN. 19 1917.
LETTERING ON REFRIGERATOR CARS
BOOK- B
302- C-1483
PAINTED

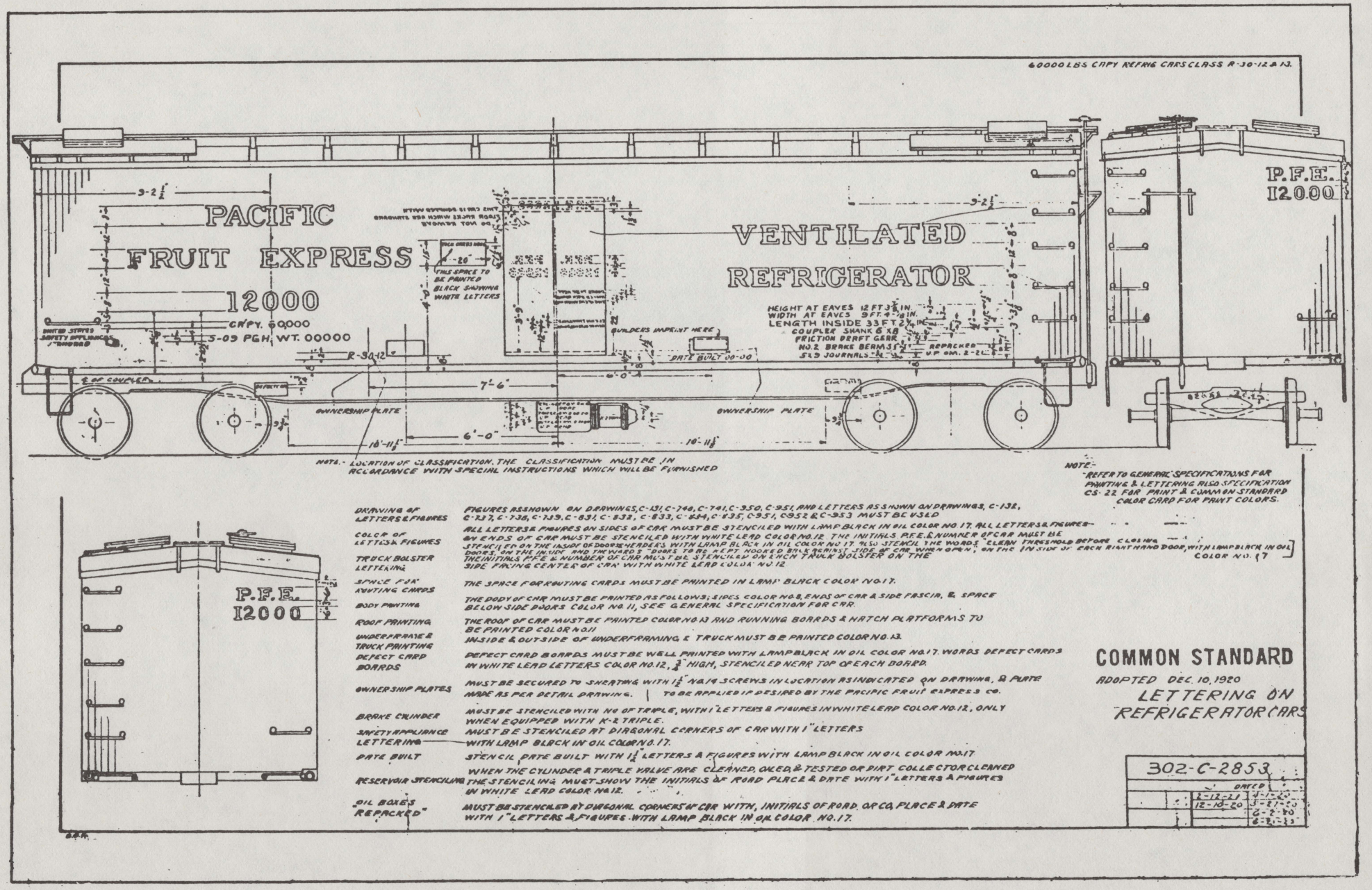

DATES OF REVISION
5-28-08 | 6-26-08
10-17-08 | 12-9-08
8-2-10 | 6-20-11
8-21-12 | 10-3-12
60000 LBS CAPY. CLASS R-30-4,5,6
WITH BETTENDORF UNDERFRAME
DOTTED LINE INDICATES BOTTOM OF CEILING.
BOHN PATENT
ICE TANKS OF THIS CAR CAN BE COLLAPSED SAVING FULL LENGTH LOADING FOR FREIGHT NOT REQUIRING ICING.
ONLY CARS EQUIPPED WITH COLLAPSIBLE ICE TANKS TO BE STENCILLED THUS ON INSIDE OF CAR
1" LETTERS IN LAMP BLACK IN OIL COLOR No. C.S. 17 -- ON DIAGONALLY OPPOSITE SIDES OF CAR, ENDS -- FOR LETTERING SEE DWG C-951
BOHN PATENT
TO BE STENCILED IN 2" LETTERS IN LAMP BLACK IN OIL COLOR C.S.17, ABOVE S.DE DOOR AS SHOWN, ON BOTH SIDES OF CAR.
PACIFIC
FRUIT EXPRESS
12000
CAPY. 60000
5.20 09. PGH WT. 00000
THIS SPACE TO BE PAINTED BLACK SHOWING WHITE LETTERS
OWNER SHIP PLATE
R 30-4
BUILDER'S IMPRINT HERE
VENTILATED
REFRIGERATOR
HEIGHT AT EAVES 12 FT. 4 IN.
WIDTH AT EAVES 9 FT. 6 IN.
LENGTH INSIDE 60 FT. 0 IN.
COUPLER SHANK SET
METAL BRAKE BEAMS
P.F.E.
12000
WT. 00000
DOOR OPEN
CEN. OF COUPLER
NOTE- LOCATION OF CLASSIFICATION. THE CLASSIFICATION MUST BE IN ACCORDANCE WITH SPECIAL INSTRUCTIONS WHICH WILL BE FURNISHED.
P.F.E.
12000
WT. 00000

Drawings of Letters & Figures	Figures As Shown On Drawings C-131 C-741 C-950 C-951 And Letters As Shown On Drawings C-132, C 831, C-832, C-833, C-834, C-335, C-951, C-952 & C 953 Must Be Used.
Color of Letters & Figures	All Letters And Figures On Sides Of Car Must Be Stenciled With Lamp Black In Oil Color No 17 All Letters And Figures On Ends Of Car Must Be Stenciled With White Lead Color No 12 The Initials P F E And Number Of Car Must Be Stenciled On The Inside Of The Door Headers With Lamp Black In Oil Color No. 17
Truck Bolster Lettering	The Initials P.F.E And Number Of Car Must Be Stenciled On Each Truck Bolster On The Side Facing Center Of Car With White Lead Color No. 12
Space For Routing Cards	The Space For Routing Cards Must Be Painted With Lamp Black In Oil Color No. 17
Body Painting	The Body Of Car Must Be Painted As Follows Sides Color No 8 Ends Of Car And Side Fascia And Space Below Side Doors Color No 11. See General Specification C.S.C.B.C
Roof Painting	The Roof Of Car Must Be Painted Color No. 11
Underframing & Truck Painting	Inside And Outside Of Underframing And Truck Must Be Painted Color No. 13
Defect Card Boards	Defect Card Boards Must Be Well Painted With Lamp Black In Oil Color No 17 Words Defect Cards In White Lead Letters Color No. 12 1/2 Inches High Stenciled Near Top Of Each Board
Owner Ship Plate	Must Be Secured To Sheathing With 12 No. 14 Screws In Location As Indicated On Drawing. And Plate Made As Per Detail Drawing C-211. To Be Applied If Desired By The Pacific Fruit Express Company.
Brake Cylinders	Must Be Stenciled With No Of Triple, With 1" Letters & Figures. In White Lead Color No. 12. Only When Equipped With K-2-Triple Or K-6 Triple.
Safety-Appliance Lettering	Must Be Stenciled At Diagonal Corners Of Car With 1" Letters In White Lead Color No 12.

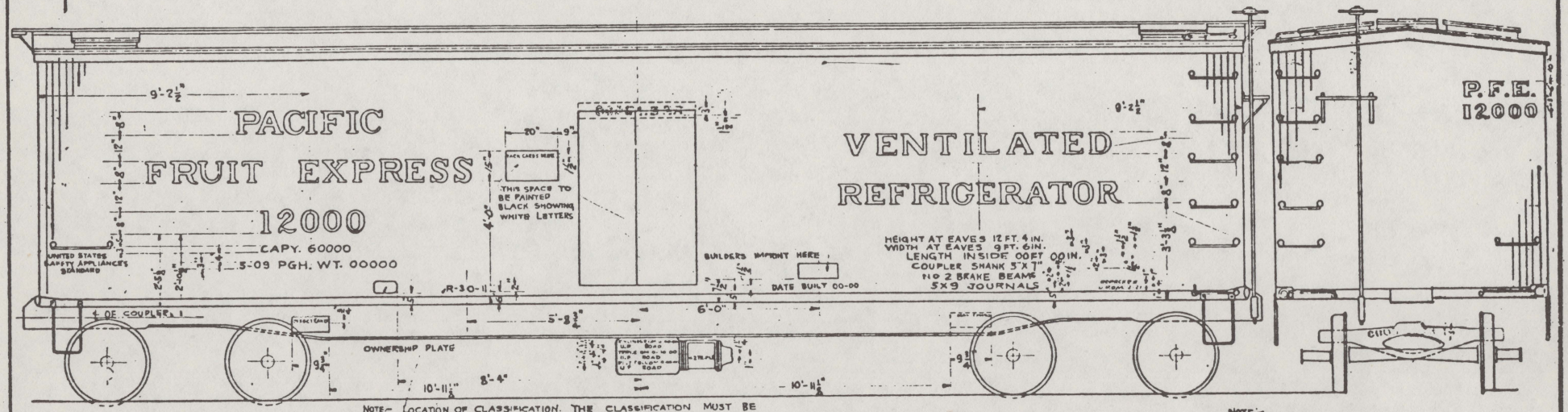
NOTE- Refer To General Specifications For Painting And Lettering Also Specification C.S.22 For Paint And Schedule "A" For Paint Colors.

LETTERING ON REFRIGERATOR CARS
5-7-09.

BOOK-259
C-, 1483

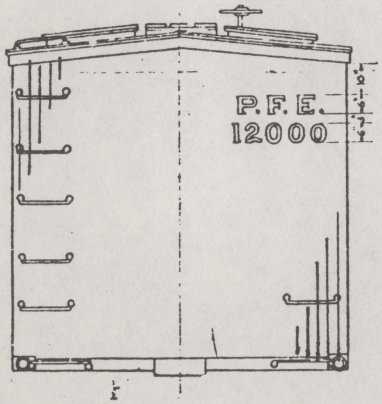

60000 LBS CAPY REFRIG CARS CLASS R-30-12 & 13.
PACIFIC
FRUIT EXPRESS
12000
CAPY. 60,000
5-09 PGH WT. 00000
VENTILATED
REFRIGERATOR
HEIGHT AT EAVES 12 FT 3 1/2 IN.
WIDTH AT EAVES 9 FT 4 7/8 IN.
LENGTH INSIDE 33 FT 2 1/2 IN.
COUPLER SHANK 6 X 8
FRICTION DRAFT GEAR
NO. 2 BRAKE BEAM
5 1/2 JOURNALS
REPACKED
P.F.E.
12000
THIS SPACE TO BE PAINTED BLACK SHOWING WHITE LETTERS
BUILDERS IMPRINT HERE
DATE BUILT 00-00
R-30-12
OWNERSHIP PLATE
OWNERSHIP PLATE
NOTE:- LOCATION OF CLASSIFICATION. THE CLASSIFICATION MUST BE IN ACCORDANCE WITH SPECIAL INSTRUCTIONS WHICH WILL BE FURNISHED
NOTE:- REFER TO GENERAL SPECIFICATIONS FOR PAINTING & LETTERING ALSO SPECIFICATION CS-22 FOR PAINT & CUMMAN STANDARD COLOR CARD FOR PAINT COLORS.
P.F.E.
12000
DRAWING OF LETTERS & FIGURES
FIGURES AS SHOWN ON DRAWINGS, C-131, C-748, C-741, C-950, C-951, AND LETTERS AS SHOWN ON DRAWINGS, C-132, C-737, C-738, C-739, C-831, C-832, C-833, C-834, C-835, C-951, C-952 & C-953 MUST BE USED
COLOR OF LETTERS & FIGURES
ALL LETTERS & FIGURES ON SIDES OF CAR MUST BE STENCILED WITH LAMP BLACK IN OIL COLOR NO 17. ALL LETTERS & FIGURES ON ENDS OF CAR MUST BE STENCILED WITH WHITE LEAD COLOR NO. 12. THE INITIALS P.F.E. & NUMBER OF CAR MUST BE STENCILED ON THE INSIDE OF DOOR HEADERS WITH LAMP BLACK IN OIL COLOR NO 17. ALSO STENCIL THE WORDS "CLEAN THRESHOLD BEFORE CLOSING DOORS" ON THE INSIDE AND THE WORDS "DOORS TO BE KEPT HOOKED BACK AGAINST SIDE OF CAR WHEN OPEN", ON THE INSIDE OF EACH RIGHT HAND DOOR, WITH LAMP BLACK IN OIL COLOR NO. 17
TRUCK BOLSTER LETTERING
THE INITIALS P.F.E. & NUMBER OF CAR MUST BE STENCILED ON EACH TRUCK BOLSTER ON THE SIDE FACING CENTER OF CAR WITH WHITE LEAD COLOR NO 12
SPACE FOR ROUTING CARDS
THE SPACE FOR ROUTING CARDS MUST BE PAINTED IN LAMP BLACK COLOR NO. 17.
BODY PAINTING
THE BODY OF CAR MUST BE PAINTED AS FOLLOWS; SIDES COLOR NO 8, ENDS OF CAR & SIDE FASCIA, & SPACE BELOW SIDE DOORS COLOR NO 11, SEE GENERAL SPECIFICATION FOR CAR.
ROOF PRINTING
THE ROOF OF CAR MUST BE PAINTED COLOR NO 13 AND RUNNING BOARDS & HATCH PLATFORMS TO BE PRINTED COLOR NO 11
UNDERFRAME & TRUCK PRINTING
INSIDE & OUTSIDE OF UNDERFRAMING & TRUCK MUST BE PAINTED COLOR NO. 13.
DEFECT CARD BOARDS
DEFECT CARD BOARDS MUST BE WELL PAINTED WITH LAMP BLACK IN OIL COLOR NO 17. WORDS DEFECT CARDS IN WHITE LEAD LETTERS COLOR NO 12, 3/4" HIGH, STENCILED NEAR TOP OF EACH BOARD.
OWNERSHIP PLATES
MUST BE SECURED TO SHEATHING WITH 1/2" NO 14 SCREWS IN LOCATION AS INDICATED ON DRAWING, & PLATE MADE AS PER DETAIL DRAWING. | TO BE APPLIED IF DESIRED BY THE PACIFIC FRUIT EXPRESS CO.
BRAKE CYLINDER
MUST BE STENCILED WITH NO OF TRIPLE, WITH 1" LETTERS & FIGURES IN WHITE LEAD COLOR NO. 12, ONLY WHEN EQUIPPED WITH K-2 TRIPLE.
SAFETY APPLIANCE LETTERING
MUST BE STENCILED AT DIAGONAL CORNERS OF CAR WITH 1" LETTERS WITH LAMP BLACK IN OIL COLOR NO. 17.
DATE BUILT
STENCIL DATE BUILT WITH 1 1/2" LETTERS & FIGURES WITH LAMP BLACK IN OIL COLOR NO 17
RESERVOIR STENCILING
WHEN THE CYLINDER & TRIPLE VALVE ARE CLEANED, OILED & TESTED OR DIRT COLLECTOR CLEANED THE STENCILING MUST SHOW THE INITIALS OF ROAD PLACE & DATE WITH 1" LETTERS & FIGURES IN WHITE LEAD COLOR NO 12.
OIL BOXES "REPACKED"
MUST BE STENCILED AT DIAGONAL CORNERS OF CAR WITH, INITIALS OF ROAD OR CO, PLACE & DATE WITH 1" LETTERS & FIGURES WITH LAMP BLACK IN OIL COLOR NO. 17.
COMMON STANDARD
ADOPTED DEC. 10, 1920
LETTERING ON REFRIGERATOR CARS
302-C-2853
DATED
2-12-21
12-10-20
1-27-20
2-2-20
6-2-33

60000 LBS. CAPY. CARS CLASS R-30-11,L



NOTE— LOCATION OF CLASSIFICATION. THE CLASSIFICATION MUST BE IN ACCORDANCE WITH SPECIAL INSTRUCTIONS WHICH WILL BE FURNISHED.

NOTE:— REFER TO GENERAL SPECIFICACIONS FOR PAINTING & LETTERING. ALSO SPECIFICATION CS-22 FOR PAINT & COMMON STANDARD COLOR COLOR CARD FOR PAINT COLORS.



DRAWING OF LETTERS & FIGURES	FIGURES AS SHOWN ON DRAWINGS C-131, C-740, C-741, C-950, C-951, AND LETTERS AS SHOWN ON DRAWINGS C-132, C-737, C-738, C-739 C-831, C-832, C-833, C-834, C-835, C-951, C-952, & C-953 MUST BE USED.
COLOR OF LETTERS & FIGURES	ALL LETTERS & FIGURES ON SIDES OF CAR MUST BE STENCILED WITH LAMP BLACK IN OIL COLOR No 17 ALL LETTERS & FIGURES ON ENDS OF CAR MUST BE STENCILED WITH WHITE LEAD COLOR No 12. THE INITIALS P.F.E & NUMBER OF CAR MUST BE STENCILED ON THE INSIDE OF DOOR HEADERS WITH LAMP BLACK IN OIL COLOR No 17
TRUCK BOLSTER LETTERING	THE INITIALS P.F.E & NUMBER OF CAR MUST BE STENCILED ON EACH TRUCK BOLSTER ON THE SIDE FACING CENTER OF CAR WITH WHITE LEAD COLOR No 12
SPACE FOR ROUTING CARDS	THE SPACE FOR ROUTING CARDS MUST BE PAINTED WITH LAMP BLACK IN OIL COLOR No 17
BODY PAINTING	THE BODY OF CAR MUST BE PAINTED AS FOLLOWS; SIDES COLOR No 8 ENDS OF CAR & SIDE FASCIA, AND SPACE BELOW SIDE DOORS COLOR No 11, SEE GENERAL SPECIFICATION FOR CAR
ROOF PAINTING	THE ROOF OF CAR MUST BE PAINTED COLOR No 11
UNDERFRAME & TRUCK PAINTING	INSIDE & OUTSIDE OF UNDERFRAMING & TRUCK MUST BE PAINTED COLOR No 13.
DEFECT CARD BOARDS	DEFECT CARD BOARDS MUST BE WELL PAINTED WITH LAMPBLACK IN OIL COLOR No 17. WORDS DEFECT CARDS IN WHITE LEAD LETTERS COLOR No 12 3/4 INCHES HIGH, STENCILED NEAR TOP OF EACH BOARD
OWNERSHIP PLATE	MUST BE SECURED TO SHEATING WITH 1½" No 14 SCREWS IN LOCATION AS INDICATED ON DRAWING, AND PLATE MADE AS PER DETAIL DRAWING C-811, TO BE APPLIED IF DESIRED BY THE PACIFIC FRUIT EXPRESS CO.
BRAKE CYLINDER	MUST BE STENCILED WITH No OF TRIPLE, WITH 1" LETTERS & FIGURES IN WHITE LEAD COLOR No 12, ONLY WHEN EQUIPPED WITH K-2 TRIPLE
SAFETY APPLIANCE LETTERING	MUST BE STENCILED AT DIAGONAL CORNERS OF CAR WITH 1" LETTERS IN WHITE LEAD COLOR No 12
DATE BUILT	STENCIL. DATE BUILT WITH 1½" LETTERS & FIGURES WITH LAMP BLACK IN OIL COLOR No 17
RESERVOIR STENCILING	WHEN THE CYLINDER & TRIPLE VALVE ARE CLEANED, OILED, & TESTED OR DIRT COLLECTOR CLEANED THE STENCILING MUST SHOW THE INITIALS OF ROAD PLACE & DATE WITH 1" LETTERS & FIGURES IN WHITE LEAD COLOR No 12.
OIL BOXES "REPACKED"	MUST BE STENCILED AT DIAGONAL CORNERS OF CAR WITH INITIALS OF ROAD OR CO. PLACE & DATE WITH ONE INCH LETTERS & FIGURES WITH LAMP BLACK IN OIL COLOR NO. 17.

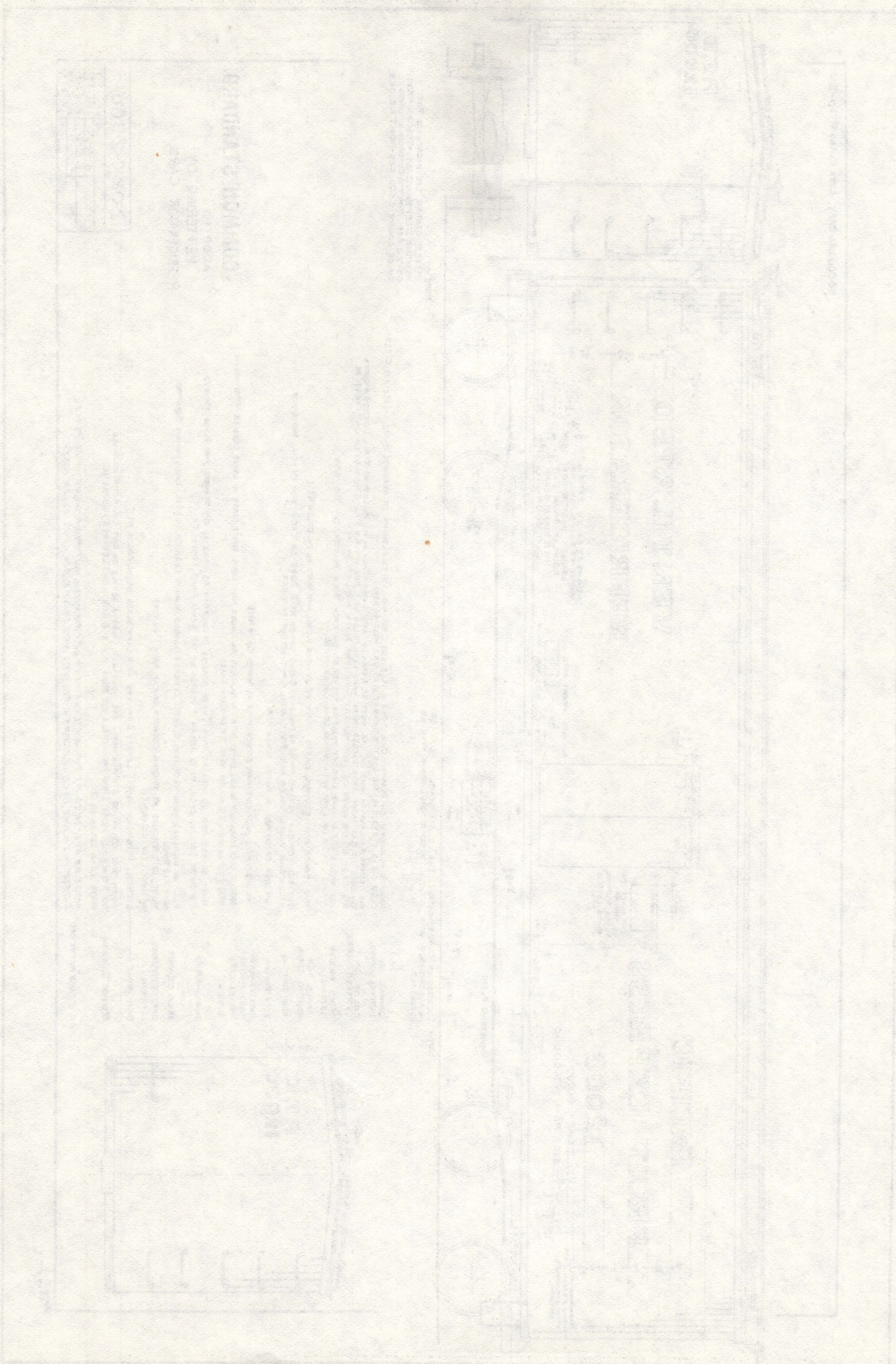
COMMON STANDARD

ADOPTED
LETTERING ON
REFRIGERATOR CARS

302-C-2560

DATED	
4-1-20	1-11-17
2-12-21	2-3-21
	2-5-21

Page-12



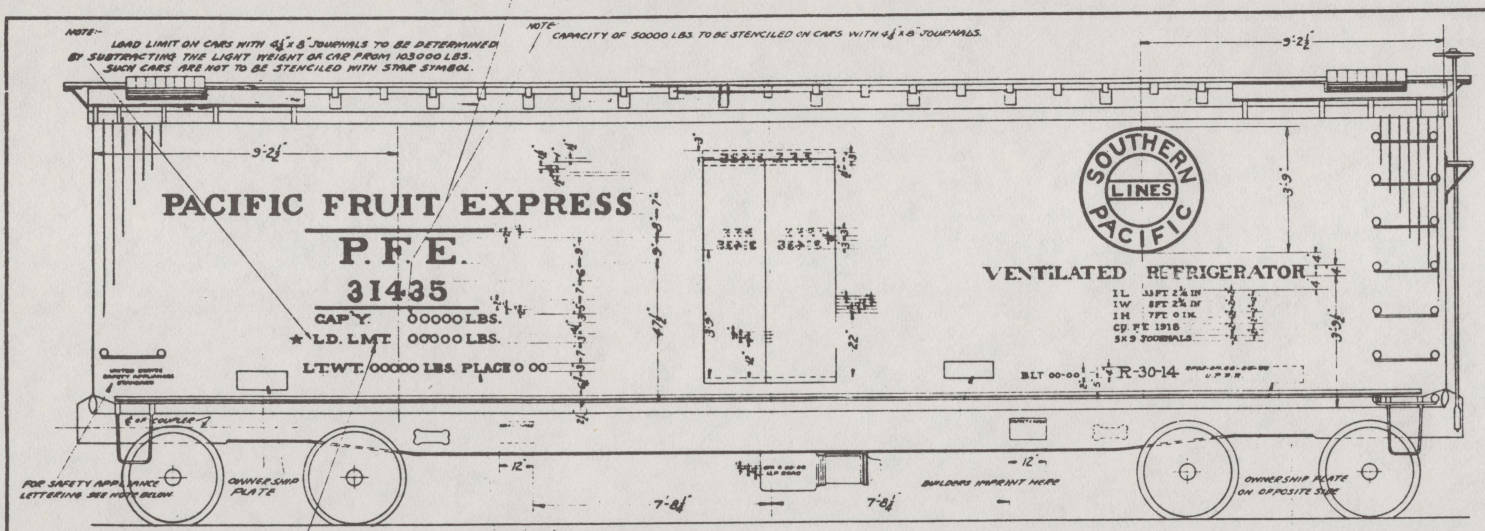
NOTE:— CAPACITY TO BE STENCILED ON CARS WITH 5"x9" JOURNALS AS FOLLOWS:

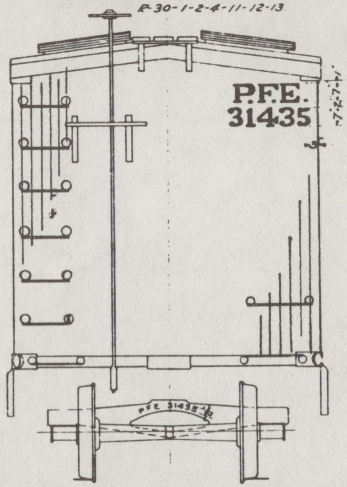
CAR NUMBERS:			CAPACITY:
13220 TO	18919	—	66000 LBS
19920 "	26719	—	" "
28250 "	28749	—	" "
29650 "	31249	—	" "
80001 "	80100	—	" "
18920 "	18919	—	70000 "
26720 "	28249	—	" "
28750 "	29649	—	" "
31250 "	36473	—	" "

NOTE:— LOAD LIMIT ON CARS WITH 4¼"x8" JOURNALS TO BE DETERMINED BY SUBTRACTING THE LIGHT WEIGHT OF CAR FROM 143000 LBS. SUCH CARS ARE NOT TO BE STENCILED WITH STAR SYMBOL.

NOTE:— CAPACITY OF 50000 LBS. TO BE STENCILED ON CARS WITH 4¼"x8" JOURNALS.

REFRIGERATOR CARS CLASS R-30-13-14
THIS DRAWING ALSO COVERS RESTENCILING OF R-30-1-2-4-11-12-13

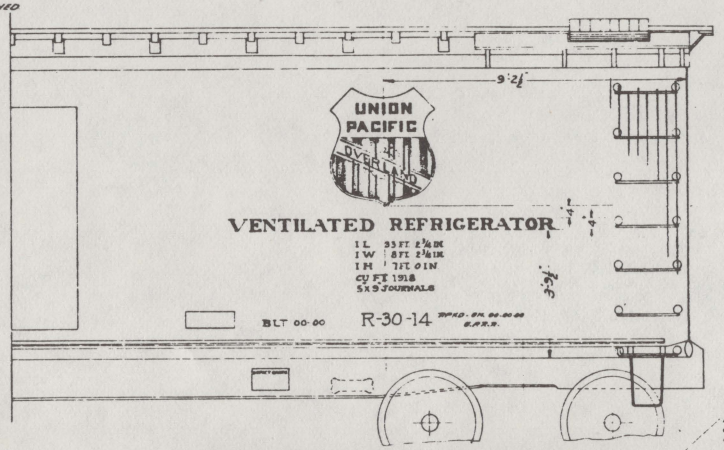


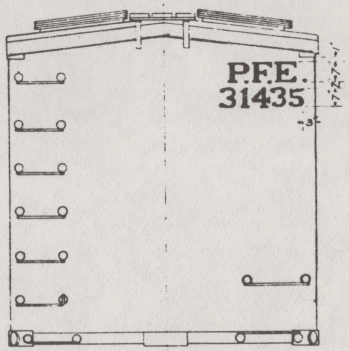


NOTE:—
CARS WITH 5"x9" JOURNALS (R-30-11,12) TO BE STENCILED WITH LOAD LIMIT OF 66000 LBS.
CARS WITH 5"x9" JOURNALS (R-30-13,14) TO BE STENCILED WITH LOAD LIMIT OF 70000 LBS.
CARS WITH 5"x9" JOURNALS ARE TO BE STENCILED WITH STAR SYMBOL INDICATING ARBITRARY LOAD LIMIT

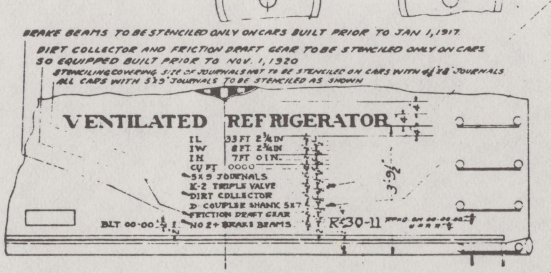
THE WORD NEW TO BE STENCILED IN PLACE OF STATION SYMBOL WHEN CARS ARE BUILT, STATION SYMBOL TO BE STENCILED WHEN CARS ARE REWEIGHED

DRAWINGS OF LETTERS AND FIGURES	FIGURES AS SHOWN ON DRAWINGS C-741, C-951, C 953, C-3068, C-3065, C-3066. LETTERS AS SHOWN ON DRAWINGS C-951, C-952, C-953, C-3058, C-3060, C-3063, C-3067 C-3068, C-3318, C-3916, C-3917, C 3918, AND C-3919 MUST BE USED.
STENCILING ON INSIDE OF CAR	THE INITIALS P.F.E. AND NUMBER OF CAR TO BE STENCILED ON INSIDE OF EACH DOOR AND DOOR HEADER WITH LAMP BLACK IN OIL COLOR NO 17 THE WORDS CLEAN THRESHOLD BEFORE CLOSING DOORS" AND "DOORS TO BE KEPT HOOKED BACK AGAINST SIDE OF CAR WHEN OPEN" TO BE STENCILED ON INSIDE OF EACH RIGHT HAND DOOR WITH LAMP BLACK IN OIL COLOR NO 17 THE WORDS THIS CAR IS EQUIPPED WITH FLOOR RACKS WHICH ARE STANDARD DO NOT REMOVE" TO BE STENCILED ON INSIDE OF CAR TO THE LEFT OF DOORS WITH LAMP BLACK IN OIL COLOR NO 17.
STENCILING ON OUTSIDE OF CAR (EXCEPT HEADLINING)	ALL LETTERS AND FIGURES ON SIDE OF CAR TO BE STENCILED WITH LAMP BLACK IN OIL COLOR NO 17. ALL LETTERS AND FIGURES ON END OF CAR TO BE STENCILED WITH WHITE LEAD COLOR NO 12
MEDALLIONS	SOUTHERN PACIFIC MEDALLION ON ONE SIDE OF CAR AND UNION PACIFIC MEDALLION DIAGONALLY OPPOSITE TO BE STENCILED AS PER DETAIL DRAWINGS C-307E AND 303C 5716
TRUCK BOLSTER STENCILING	THE INITIALS P.F.E. AND NUMBER OF CAR TO BE STENCILED ON EACH TRUCK BOLSTER ON THE SIDE FACING END OF CAR WITH WHITE LEAD COLOR NO. 12
BODY PAINTING	THE BODY OF CAR TO BE PAINTED AS FOLLOWS: SIDES OF CAR COLOR NO 8, ENDS OF CAR, SIDE FASCIA AND SPACE BELOW SIDE DOORS COLOR NO. 11, SEE GENERAL CAR SPECIFICATION
ROOF PAINTING	THE ROOF OF CAR TO BE PAINTED COLOR NO. 13, RUNNING BOARDS AND HATCH PLATFORMS TO BE PAINTED COLOR NO. 11.
UNDER FRAME AND TRUCK PAINTING	INSIDE AND OUTSIDE OF UNDERFRAMING AND TRUCKS TO BE PAINTED COLOR NO. 13.
DEFECT CARD BOARD	DEFECT CARD BOARDS TO BE WELL PAINTED WITH LAMP BLACK IN OIL COLOR NO 17, THE WORDS "DEFECT CARD" TO BE STENCILED WITH WHITE LEAD COLOR NO 12. 1" LETTERS NEAR TOP OF EACH BOARD
OWNER SHIP PLATE	MUST BE SECURED TO SHEATHING WITH 1½" NO. 14 SCREWS IN LOCATION INDICATED, PLATE TO BE MADE AS PER DETAIL DRAWING. TO BE APPLIED BY THE PACIFIC FRUIT EXPRESS COMPANY, IF DESIRED.
DATE BUILT	STENCIL DATE BUILT WITH 2" LETTERS AND FIGURES WITH LAMP BLACK IN OIL COLOR NO. 17.
BRAKE RESERVOIR STENCILING	WHEN CYLINDER, TRIPLE VALVE AND DIRT COLLECTOR ARE CLEANED, OILED AND TESTED THE STENCILING MUST SHOW THE INITIALS OF ROAD, PLACE AND DATE WITH 1" LETTERS AND FIGURES IN WHITE LEAD COLOR NO 12.
OIL BOXES REPACKED	MUST BE STENCILED AT DIAGONAL CORNERS OF CAR, WITH INITIALS OF ROAD, PLACE AND DATE WITH 1" LETTERS AND FIGURES WITH LAMP BLACK IN OIL COLOR NO 17.
SAFETY APPLIANCE STENCILING	MUST BE STENCILED WITH 1" LETTERS AT DIAGONAL CORNERS OF CAR WITH LAMP BLACK IN OIL COLOR NO 17 ONLY ON CARS BUILT PRIOR TO JAN 1, 1920
FLOOR RACK STENCILING	FLOOR RACKS MUST BE STENCILED WITH INITIALS PFE AND NUMBER OF CAR IN 3" LETTERS AND FIGURES IN LAMP BLACK IN OIL COLOR NO. 17 AS SHOWN ON DETAIL DRAWING C-3744.
CLASSIFICATION	STENCIL CLASSIFICATION WITH 4" LETTERS AND FIGURES WITH LAMP BLACK IN OIL COLOR NO 17
STAR STENCILING	A 3" STAR SYMBOL TO BE STENCILED AT THE IMMEDIATE LEFT OF THE WORDS "LD LMT." WITH LAMP BLACK IN OIL COLOR NO 17. STAR AS SHOWN ON DRAWING C-741. TO BE USED ONLY ON CARS HAVING ARBITRARY LOAD LIMIT.





BRAKE BEAMS TO BE STENCILED ONLY ON CARS BUILT PRIOR TO JAN 1, 1917.
DIRT COLLECTOR AND FRICTION DRAFT GEAR TO BE STENCILED ONLY ON CARS SO EQUIPPED BUILT PRIOR TO NOV. 1, 1920
STENCILING COVERING SIZE OF JOURNALS NOT TO BE STENCILED ON CARS WITH 4¼"x8" JOURNALS
ALL CARS WITH 5"x9" JOURNALS TO BE STENCILED AS SHOWN



IN MAKING REPAIRS TO TRIPLE VALVE IT IS FOUND NECESSARY TO REPLACE SAME WITH ANY NON-STANDARD VALVE, THE STENCILING ON CAR BODY SHOWING VALVE STANDARD TO THE CAR MUST BE CHANGED TO CONFORM WITH VALVE APPLIED

ON EXISTING CARS WHEN TYPE "D" COUPLER WITH 5¾" SHANK IS APPLIED THE CAR SHOULD BE STENCILED "D-COUPLER SHANK 5¾" WHEN CAR IS EQUIPPED WITH ONLY ONE TYPE "D" COUPLER, THE LETTER "A" OR "B" DESIGNATING THE END TO WHICH THE COUPLER HAS BEEN APPLIED SHOULD BE STENCILED ON THE RIGHT FOR EXAMPLE "D-COUPLER SHANK 5¾" A END OR B END AS THE CASE MAY BE.

MICROFILMED
4-25-74
-UNION PACIFIC SYSTEM

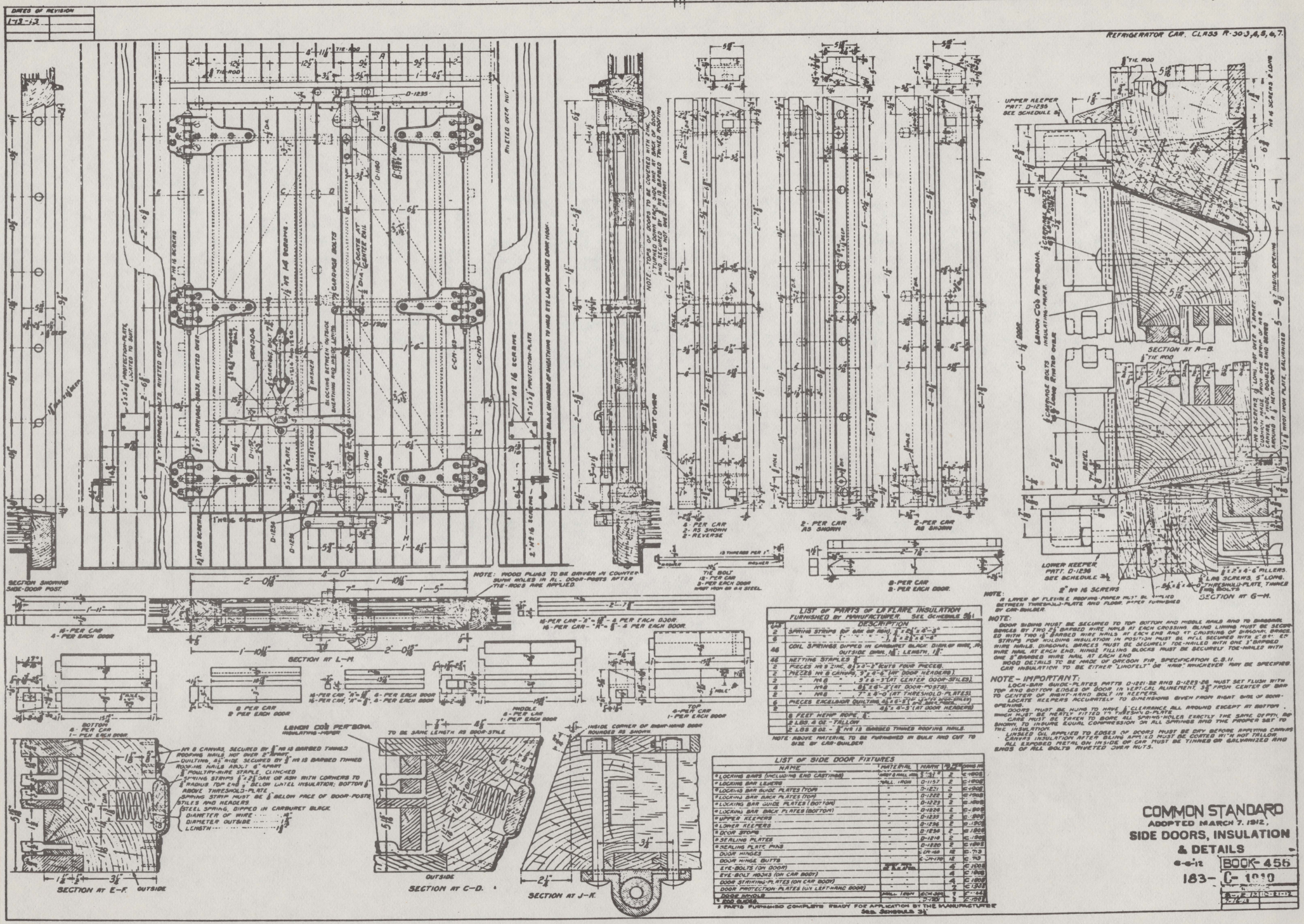
COMMON STANDARD
ADOPTED
LETTERING ON REFRIGERATOR CARS

303 C-3763

NOTE:
REFER TO GENERAL SPECIFICATION FOR PAINTING AND LETTERING ALSO SPECIFICATION CS-22 FOR COMMON STANDARD PAINT AND COLOR CARD

12-12-35	10-3-32	6-9-31	3-8-28	11-9-26	8-10-26	12-21-25
				3-7-27	9-22-26	4-2-26

REFER BACK C 3011


DATES OF REVISION
1-13-13
REFRIGERATOR CAR. CLASS R-30-3,4,5,6,7.
SECTION SHOWING SIDE-DOOR POST.
SECTION AT L-M.
SECTION AT A-B.
SECTION AT G-H.
SECTION AT E-F.
SECTION AT C-D.
SECTION AT J-K.
NOTE: WOOD PLUGS TO BE DRIVEN IN COUNTER SUNK HOLES IN ALL DOOR-POSTS AFTER TIE-RODS ARE APPLIED.
NOTE: TOPS OF DOORS TO BE COVERED WITH TIN TURNED DOWN EACH SIDE AND AT BACK OF DOOR AND SECURED WITH 3/4" GALVANIZED TINNED ROOFING NAILS NOT MORE THAN 2" APART.
LAGGING COVERED WITH INSULATING-PAPER
LOWER KEEPER, PATT. D-1236 SEE SCHEDULE 34
UPPER KEEPER PATT. D-1295 SEE SCHEDULE 34
2" NO 16 SCREWS
TIE BOLT 13" PER CAR 3-PER EACH DOOR
8-PER CAR 2-PER EACH DOOR.
2-PER CAR AS SHOWN
2-PER CAR AS SHOWN
1-PER CAR 2-AS SHOWN 2-REVERSE
16-PER CAR 4-PER EACH DOOR
16-PER CAR-"A"-4-PER EACH DOOR 16-PER CAR-"B"-4-PER EACH DOOR
8 PER CAR 2 PER EACH DOOR
16-PER CAR "A"-4-PER EACH DOOR 16-PER CAR "B"-4-PER EACH DOOR
BOTTOM 4-PER CAR 1-PER EACH DOOR
MIDDLE 4-PER CAR 1-PER EACH DOOR
TOP 4-PER CAR 1-PER EACH DOOR
LAGGING COVERED WITH INSULATING-PAPER
TO BE SAME LENGTH AS DOOR-STYLE
INSIDE CORNER OF RIGHT-HAND DOOR ROUNDED AS SHOWN
OUTSIDE
INSIDE
NO 8 CANVAS, SECURED BY 3/4" NO 16 BARBED TINNED ROOFING NAILS NOT OVER 2" APART.
QUILTING, 4 1/2" WIDE. SECURED BY 3/4" NO 16 BARBED TINNED ROOFING NAILS ABOUT 6" APART
3/4" POULTRY-WIRE STAPLE, CLINCHED
SPRING STRIPS 1/4" x 2 1/2" OAK OR ASH WITH CORNERS TO 1/4" RADIUS TOP END 3" BELOW LATEL INSULATION; BOTTOM 1/2" ABOVE THRESHOLD-PLATE
SPRING STRIP MUST BE 1/2" BELOW FACE OF DOOR-POST
STILES AND HEADERS
STEEL SPRING, DIPPED IN CARBURET BLACK.
DIAMETER OF WIRE ..... .177"
DIAMETER OUTSIDE ..... 1 1/4"
LENGTH ..... 1 1/4"
NOTE: A LAYER OF FLEXIBLE ROOFING-PAPER PATT 84 TO BE PLACED BETWEEN THRESHOLD-PLATE AND FLOOR-PAPER FURNISHED BY CAR-BUILDER.
NOTE:
DOOR SIDING MUST BE SECURED TO TOP, BOTTOM AND MIDDLE RAILS AND TO DIAGONAL BRACES AT TWO 3/4" BARBED WIRE NAILS AT EACH CROSSING, SLIDING LINING MUST BE SECURED WITH TWO 1 1/2" BARBED WIRE NAILS AT EACH END AND AT CROSSING OF DIAGONAL BRACE
STRIPS FOR HOLDING INSULATION IN POSITION MUST BE NAILED SECURED WITH 1" BARBED WIRE NAILS. DIAGONAL BRACES MUST BE SECURELY TOE-NAILED WITH ONE 3" BARBED WIRE NAIL AT EACH END. HINGE FILLING BLOCKS MUST BE SECURELY TOE-NAILED WITH ONE 3" BARBED WIRE NAIL AT EACH END.
WOOD DETAILS TO BE MADE OF OREGON FIR, SPECIFICATION C.B.11.
CAR INSULATION TO BE EITHER "LINOFELT" OR "KIMS" WHICHEVER MAY BE SPECIFIED.
NOTE - IMPORTANT:
LOCK-BAR GUIDE-PLATES, PATTS D-1221-B2 AND D-1223-B2, MUST SET FLUSH WITH TOP AND BOTTOM EDGES OF DOOR IN VERTICAL ALINEMENT, 3 1/2" FROM CENTER OF BAR TO CENTER OF RIGHT-HAND BOLT IN KEEPER.
LOCATE KEEPERS ACCURATELY TO DIMENSIONS GIVEN FROM RIGHT SIDE OF DOOR-OPENING.
DOORS MUST BE KLINS TO HAVE 1/8" CLEARANCE ALL AROUND EXCEPT AT BOTTOM, WHICH MUST BE NEATLY FITTED TO THRESHOLD-PLATE.
CARE MUST BE TAKEN TO BORE ALL SPRING-HOLES EXACTLY THE SAME DEPTH, AS SHOWN, TO INSURE EQUAL COMPRESSION ON ALL SPRINGS AND THE PROPER SET TO THE INSULATION.
LINSEED OIL APPLIED TO EDGES OF DOORS MUST BE DRY BEFORE APPLYING CANVAS.
CANVAS INSULATION AFTER BEING APPLIED MUST BE COATED WITH HOT TALLOW.
ALL EXPOSED METAL ON INSIDE OF CAR MUST BE TINNED OR GALVANIZED AND ENDS OF ALL BOLTS RIVETED OVER NUTS.
COMMON STANDARD
ADOPTED MARCH 7, 1912.
SIDE DOORS, INSULATION & DETAILS
BOOK-456
183-C-1910

LIST OF PARTS OF LA FLARE INSULATION FURNISHED BY MANUFACTURER SEE SCHEDULE 34.1

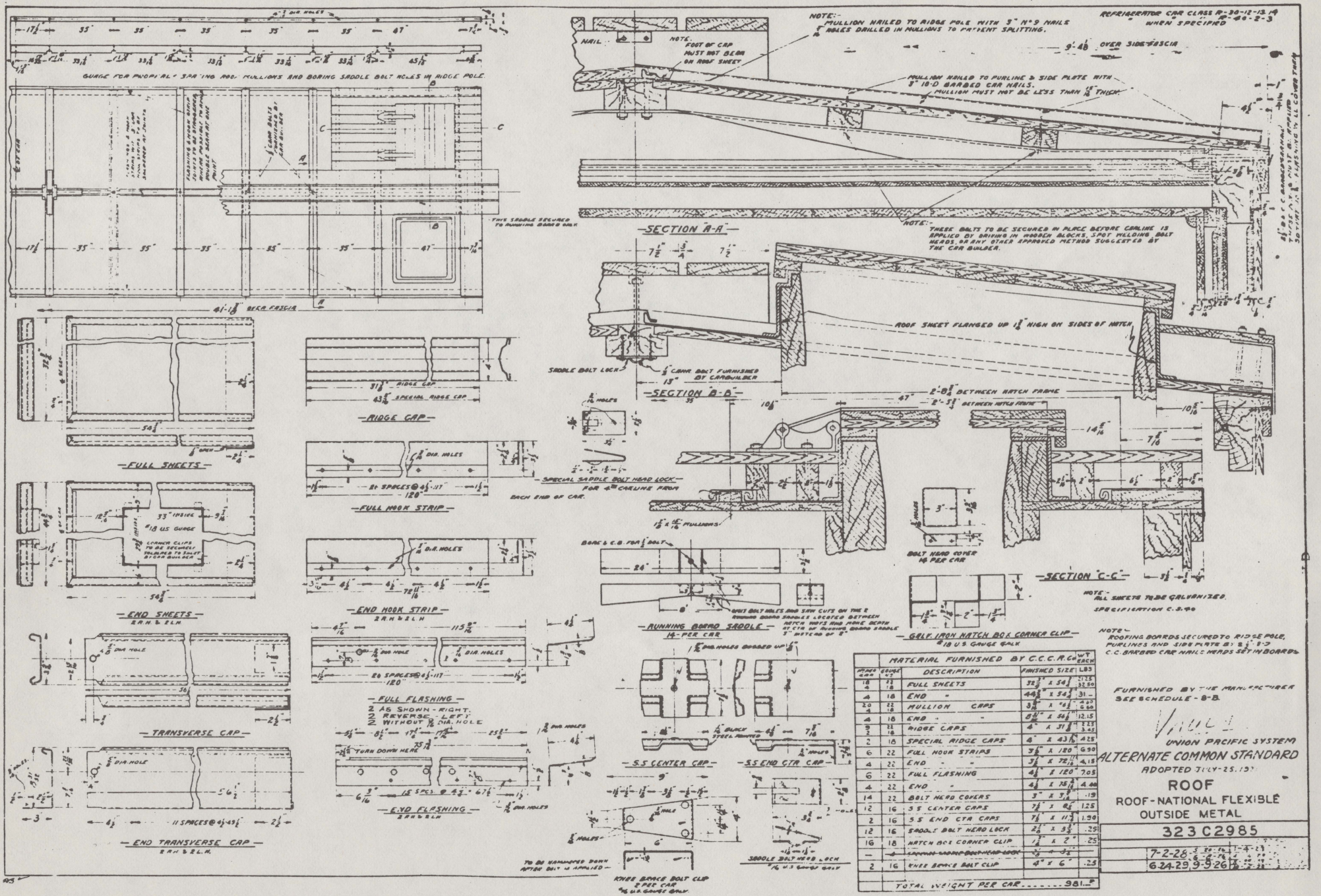
CAR	DESCRIPTION
2	SPRING STRIPS OF OAK OR ASH, 1/4" x 2 1/2" x 2'-3"
6	" " " " " 1/4" x 2 1/2" x 6'-6"
46	COIL SPRINGS DIPPED IN CARBURET BLACK, DIAM OF WIRE, .177", OUTSIDE DIAM, 1 1/4": LENGTH, 1 1/2"
46	NETTING STAPLES 3/4"
2	PIECES NO 8 ZINC, 8 1/2" x 2'-2" CUTS FOUR PIECES.
2	PIECES NO 8 CANVAS, 3'-8 1/2" x 6'-8" (AT DOOR-HEADERS)
2	" NO 8 " 7' 2 1/2" x 6'-0" (AT THRESHOLD PLATES).
4	" NO 8 " 8 1/2" x 6'-8" (AT DOOR-POSTS)
2	" NO 8 " 7' 2 1/2" x 6'-0" (AT THRESHOLD PLATES).
16	PIECES EXCELSIOR QUILTING, 6 1/2" x 8'-0" (2" WIDTH REQUIRED)
"	" " " 6 1/2" x 4'-3" (AT DOOR HEADERS)
6	FEET HEMP ROPE, 1/2"
2	LBS. 4 OZ. - TALLOW
2	LBS. 8 OZ. - 3/4" NO 12 BARBED TINNED ROOFING NAILS.

NOTE ABOVE MATERIAL TO BE FURNISHED IN BULK AND CUT TO SIZE BY CAR-BUILDER

LIST OF SIDE DOOR FIXTURES

NAME	MATERIAL	MARK	No.	DRG. No.
* LOCKING BARS (INCLUDING END CASTINGS)	MALLEABLE IRON	C-1157	2	C-1908
* LOCKING BAR LEVERS	" "	D-1157	2	C-1908
* LOCKING BAR GUIDE PLATES (TOP)	" "	D-1221	2	C-1908
* LOCKING BAR BACK PLATES (TOP)	" "	D-1222	2	C-1908
* LOCKING BAR GUIDE PLATES (BOTTOM)	" "	D-1223	2	C-1908
* LOCKING BAR BACK PLATES (BOTTOM)	" "	D-1224	2	C-1908
* UPPER KEEPERS	" "	D-1295	2	C-1908
* LOWER KEEPERS	" "	D-1236	2	C-1908
* DOOR STOPS	" "	D-1238	2	C-1908
* SEALING PLATES	" "	D-1218	2	C-1908
* SEALING PLATE PINS	" "	D-1220	2	C-1908
DOOR HINGES	" "	C-CH-48	12	C-713
DOOR HINGE BUTTS	" "	C-JH-170	12	C-713
EYE-BOLTS (ON DOOR)	STEEL		4	C-1908
EYE-BOLT HOOKS (ON CAR BODY)	"		4	C-1908
DOOR STRIKING-PLATES (ON CAR BODY)	"		4	C-1908
DOOR PROTECTION PLATES (ON LEFT-HAND DOOR)	"		1	C-1908
DOOR HANDLE	MALL. IRON	BCH-564	1	C-62
* DOOR GUIDES	" "	D-1287	2	C-1908

* PARTS FURNISHED COMPLETE READY FOR APPLICATION BY THE MANUFACTURER SEE SCHEDULE 34


REFRIGERATOR CAR CLASS R-30-12-12 &
R-40-12-3
WHEN SPECIFIED
NOTE:- MULLION NAILED TO RIDGE POLE WITH 3" N°9 NAILS
5 HOLES DRILLED IN MULLIONS TO PREVENT SPLITTING.
NAIL
NOTE:- FOOT OF CAP MUST NOT BEAR ON ROOF SHEET
9'-4⅛" OVER SIDE FASCIA
MULLION NAILED TO PURLINE & SIDE PLATE WITH 3" 10-D BARBED CAR NAILS.
MULLION MUST NOT BE LESS THAN 1⅝" THICK.
NOTE:- THESE BOLTS TO BE SECURED IN PLACE BEFORE CARLINE IS APPLIED BY DRIVING IN WOODEN BLOCKS, SPOT WELDING BOLT HEADS, OR ANY OTHER APPROVED METHOD SUGGESTED BY THE CAR BUILDER.
GUAGE FOR PROPERLY SPACING ROOF MULLIONS AND BORING SADDLE BOLT HOLES IN RIDGE POLE.
THIS SADDLE SECURED TO RUNNING BOARD CALK
41'-1⅞" BEAM FASCIA
SECTION A-A
SECTION B-B
ROOF SHEET FLANGED UP ⅛" HIGH ON SIDES OF NOTCH
SADDLE BOLT LOCK
⅝" CAM BOLT FURNISHED BY CARBUILDER
2'-8⅛" BETWEEN NOTCH FRAME
2'-5⅜" BETWEEN NOTCH FRAME
FULL SHEETS
RIDGE CAP
SPECIAL RIDGE CAP
FULL HOOK STRIP
SPECIAL SADDLE BOLT HEAD LOCK FOR 4TH CARLINE FROM EACH END OF CAR.
1½ x 15/16 MULLIONS
BOLT HEAD COVER 16 PER CAR
SECTION C-C
NOTE:- ALL SHEETS TO BE GALVANIZED. SPECIFICATION C.S.90
END SHEETS
END HOOK STRIP
RUNNING BOARD SADDLE 14 PER CAR
GALV. IRON NATCH BOX CORNER CLIP
18 U.S. GAUGE GALV.
NOTE:- ROOFING BOARDS SECURED TO RIDGE POLE, PURLINES AND SIDE PLATE BY 2½" 8-7 C.C. BARBED CAR NAILS HEADS SET IN BOARDS.
TRANSVERSE CAP
FULL FLASHING
2 AS SHOWN - RIGHT
2 REVERSE - LEFT
2 WITHOUT ⅞ DIA. HOLE
END FLASHING
END TRANSVERSE CAP
5 S CENTER CAP
5 S END CTR CAP
SADDLE BOLT HEAD LOCK
KNEE BRACE BOLT CLIP 2 PER CAR
TO BE HAMMERED DOWN AFTER BOLT IS APPLIED

MATERIAL FURNISHED BY C.C.C.R.Co					WT EACH
PIECES EACH END	GAUGE U.S.	DESCRIPTION	FINISHED SIZE	L&S	
18	22	FULL SHEETS	32⅝" X 54"	1.75	32.50
4	18	END "	44⅝" X 54⅛"	1.31	—
20	22	MULLION CAPS	3⅝" X 6⅛"	4.10	5.60
4	18	END " "	8⅝" X 54⅛"	1.31	12.15
9	22	RIDGE CAPS	4" X 31⅛"	3.33	3.45
2	18			3.45	
2	18	SPECIAL RIDGE CAPS	4" X 43⅛"	4.25	—
6	22	FULL HOOK STRIPS	3⅝" X 120"	6.90	—
4	22	END " "	3⅝" X 72 11/16"	4.15	—
6	22	FULL FLASHING	4⅝" X 120"	7.05	—
4	22	END " "	4⅝" X 36 11/16"	4.46	—
14	22	BOLT HEAD COVERS	3" X 3⅛"	.19	—
12	16	5 S CENTER CAPS	7⅛" X 8⅝"	1.25	—
2	16	5 S END CTR CAPS	7⅛" X 11⅝"	1.90	—
12	16	SADDLE BOLT HEAD LOCK	2⅝" X 3⅝"	.29	—
16	18	NATCH BOX CORNER CLIP	1⅛" X 2"	.25	—
—	—	SPECIAL WASHER FOR HEAD LOCK	⅝" x ⅝"	—	—
2	16	KNEE BRACE BOLT CLIP	4" X 6"	.25	—
		TOTAL WEIGHT PER CAR			981 LBS

FURNISHED BY THE MANUFACTURER SEE SCHEDULE - B-B

UNION PACIFIC SYSTEM

ALTERNATE COMMON STANDARD

ADOPTED JULY-25-19

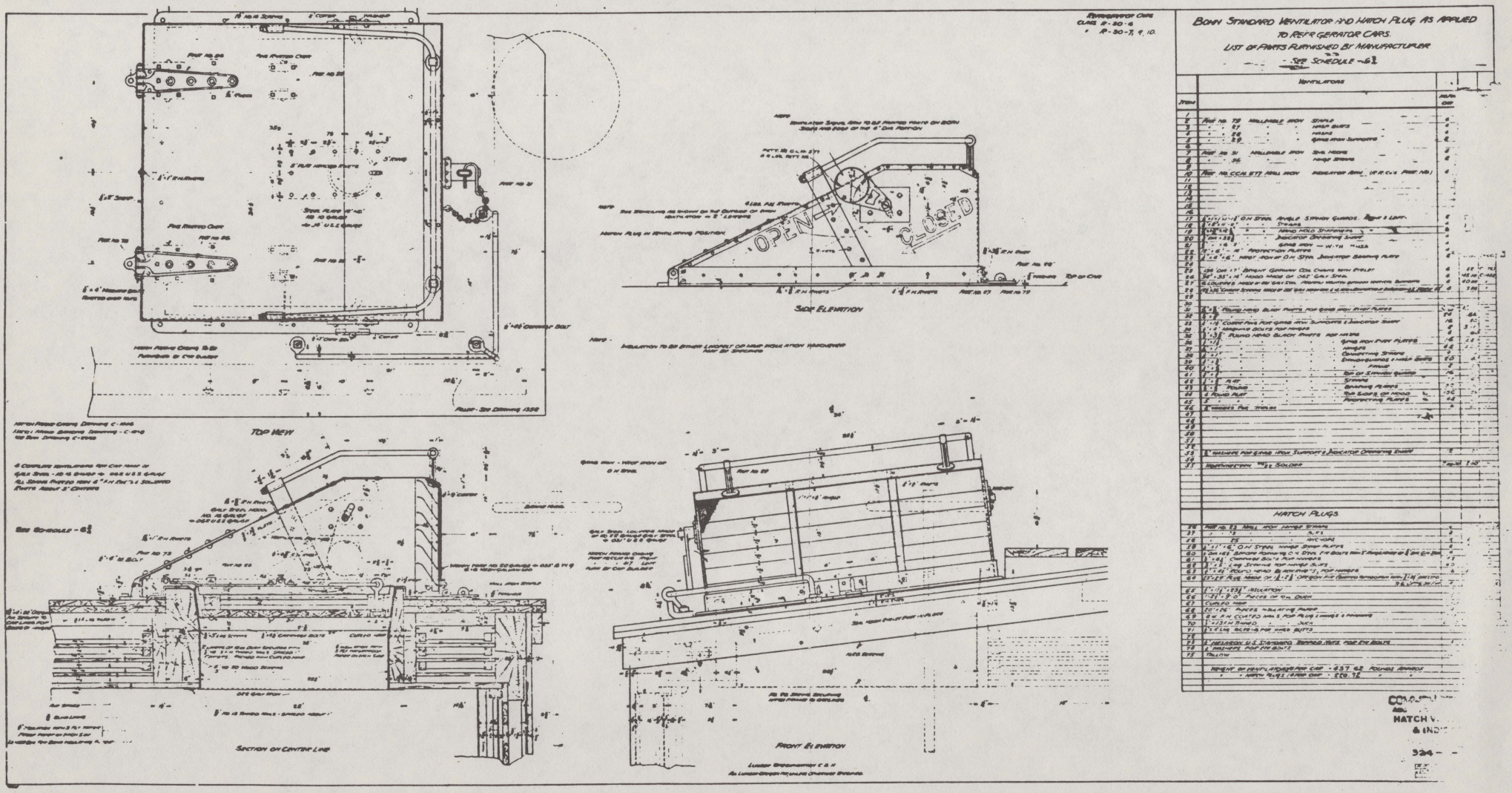
ROOF

ROOF - NATIONAL FLEXIBLE

OUTSIDE METAL

323 C2985

7-2-28 | 6-24-29 | 9-9-26



BOHN STANDARD VENTILATOR AND HATCH PLUG AS APPLIED TO REFRIGERATOR CARS.
LIST OF PARTS FURNISHED BY MANUFACTURER

VENTILATORS

ITEM				
1				
2	Post No. 78	MALLEABLE IRON	STAPLE	
3	" " 87	" "	HASP SLOTS	
4	" " 89	" "	HASP	
5	" " 89	" "	OPEN IRON SUPPORTS	
6				
7	Post No. 91	MALLEABLE IRON	SPIN HOOPS	
8	" " 96	" "	HINGE STRAPS	
9				
10	Post No. (CCLET)	MALL IRON	INDICATOR ARM (R.R.C.o.s. Post No.)	
11				
12				
13				
14				
15				
16				
17	[illegible] O.H. STEEL	ANGLE	SPRING GUARDS	
18	1 1/2" x 1" x 1/4"	"	STAPLES	
19	1/4" x 1 1/2"	"	HAND HOLD STAPPINGS	
20	[illegible]	"	INDICATOR BEARING PLATE	
21	" " 16 2	"	GANG IRON — W. TH. H.A.S.A.	
22	" " 6"	"	PROTECTION PLATES	
23	1 1/2" x 6"	"	FIRST IRON OF O.H. STEEL INDICATOR BEARING PLATE	
24				
25	[illegible] O.H. STEEL	ANGLE	SPRING GUARDS	
26	36" x 35" x 6"	"	HOOD MADE OF ONE GALV. STEEL	
27	LOUVRES MADE OF [illegible] GALVANIZED			
28	[illegible]			
29				
30				
31	1" x 1"	ROUND HEAD BLACK RIVETS	FOR GANG IRON RIVET PLATES	
32	1" x 1"	"	"	
33	1/4" x 1"	COUNTER PINS	FOR GANG IRON SUPPORTS & INDICATOR SHAFT	
34	1/4" x 1"	MACHINE BOLTS	FOR HINGES	
35	1/4" x 3/4"	ROUND HEAD BLACK RIVETS	FOR HASPS	
36	1/4" x "	"	GANG IRON RIVET PLATES	
37	1/4" x "	"	HINGES	
38	1/4" x "	"	COUNTERSUNK STRAPS	
39	1/4" x "	"	SPRING GUARDS & HASP SLOTS	
40	1/4" x "	"	STAPLES	
41	1/4" x "	"	TOP OF SPRING GUARD	
42	1/4" x 1" FLAT	"	SPRING	
43	1/4" x 1" ROUND	"	BEARING PLATES	
44	1/4" ROUND FLAT	"	TOP SLOTS OF HOOD	
45	" "	"	PROTECTING PLATES	
46	4 WASHERS FOR [illegible]			
47				
48				
49				
50				
51	1 WASHER FOR GANG IRON SUPPORTS & INDICATOR OPERATING SHAFT			
52				
53	HARDWARE FOR [illegible] SOLDER			

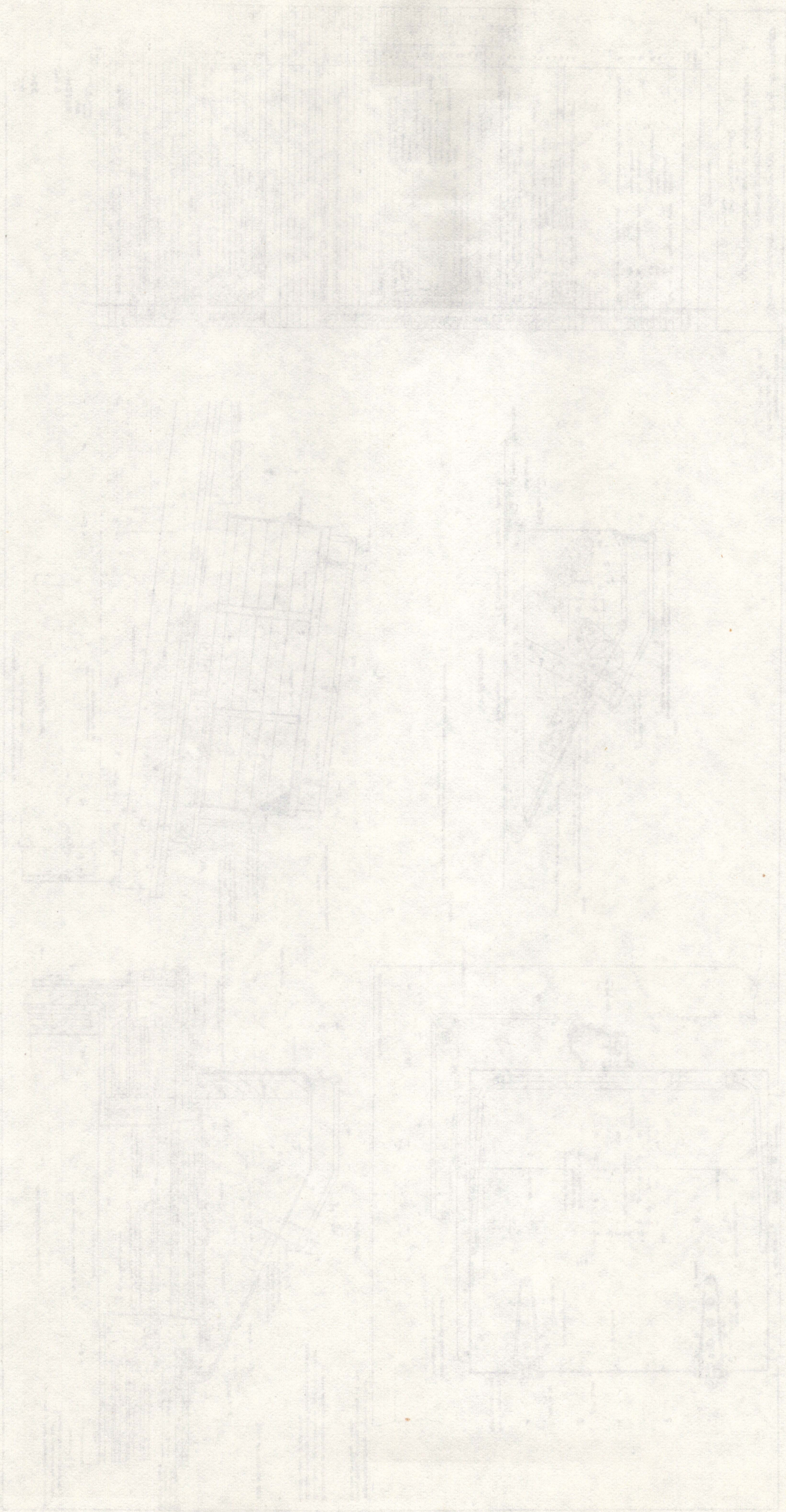
HATCH PLUGS

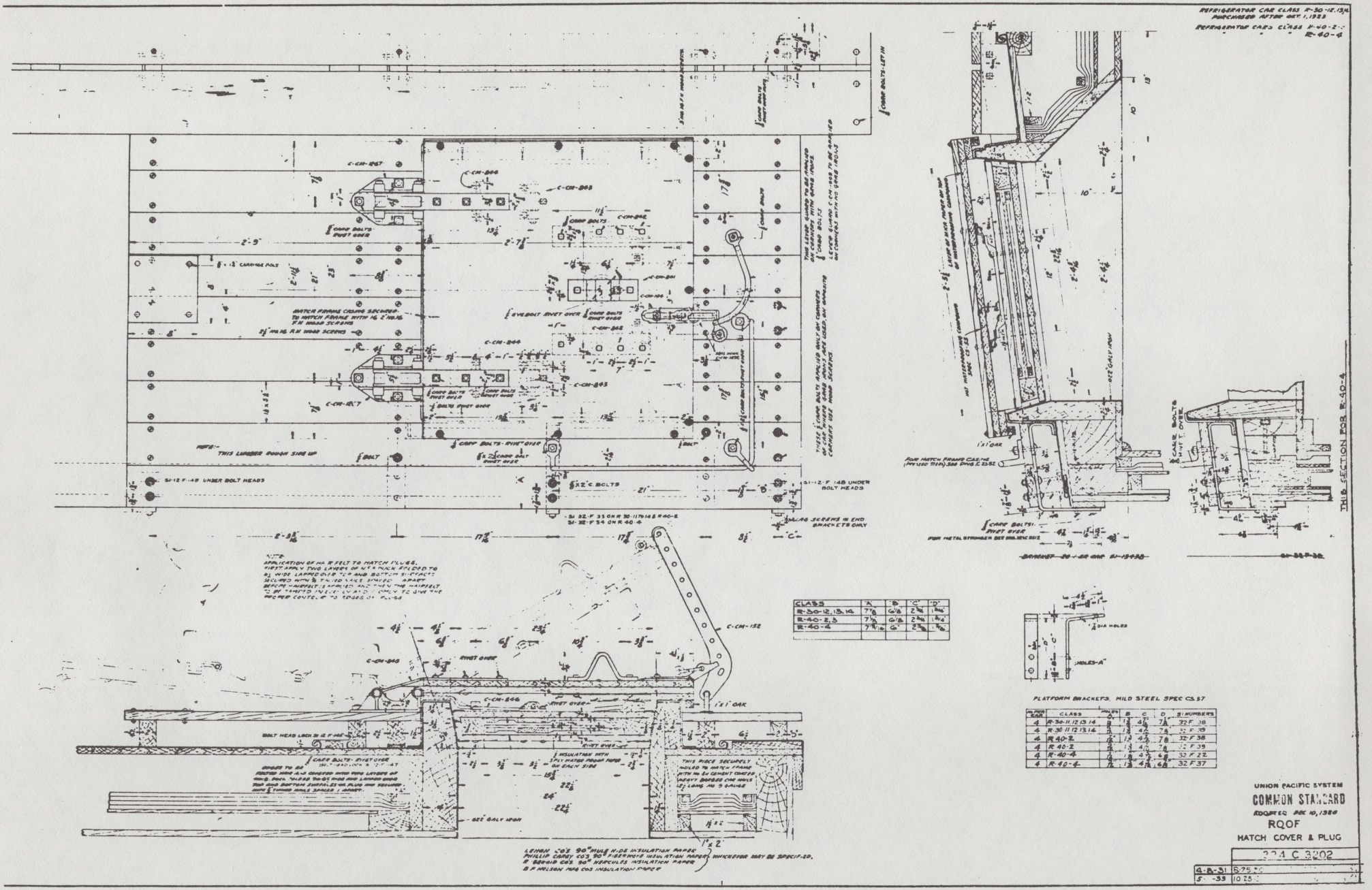
76	Post No. 93	MALL IRON	HINGE STRAPS	
77	" " 93	"	SLATS	
78	" " 95	"	ANCHORS	
79	1/4" x 1" x 6"	O.H. STEEL	HINGE STRAP PLATES	
80	3/4" x 1/2"	BARTON PACKING	O.H. STEEL PIN BOLTS FOR 5" RECESSES OF 1" O.H. STEEL	
81	1/4" x 1"	CHANNEL	BOLTS FOR HINGES	
82	1/4" x 1"	"	STRAPPING FOR HINGE SLATS	
83	1/4" x 1"	ROUND HEAD BLACK RIVETS	FOR HINGES	
84	OTHER PLUG NEEDS	OF [illegible]	OMITTED FOR [illegible]	
85				
86	1" x 1" x 1/32"	INSULATION		
87	1" x 1" x 2'-0"	PIECES OF O.H. DUCH		
88	CURLED HAIR			
89	24" x 24"	PIECES	HEATING PAPER	
90	8" x 4"	O.H. CURVED WALL	FOR PLUG LUGGES & HINGES	
91	1/2" x 3/4"	TINNED	SOCK	
92	1" x 1" x 1/4"	SLOTS	FOR HASP SLOTS	
93				
94	1 HELLESON U.S. STANDARD	TAPPED NUTS	FOR EYE BOLTS	
95	1 WASHER	FOR EYE BOLT		
96	TALLOW			

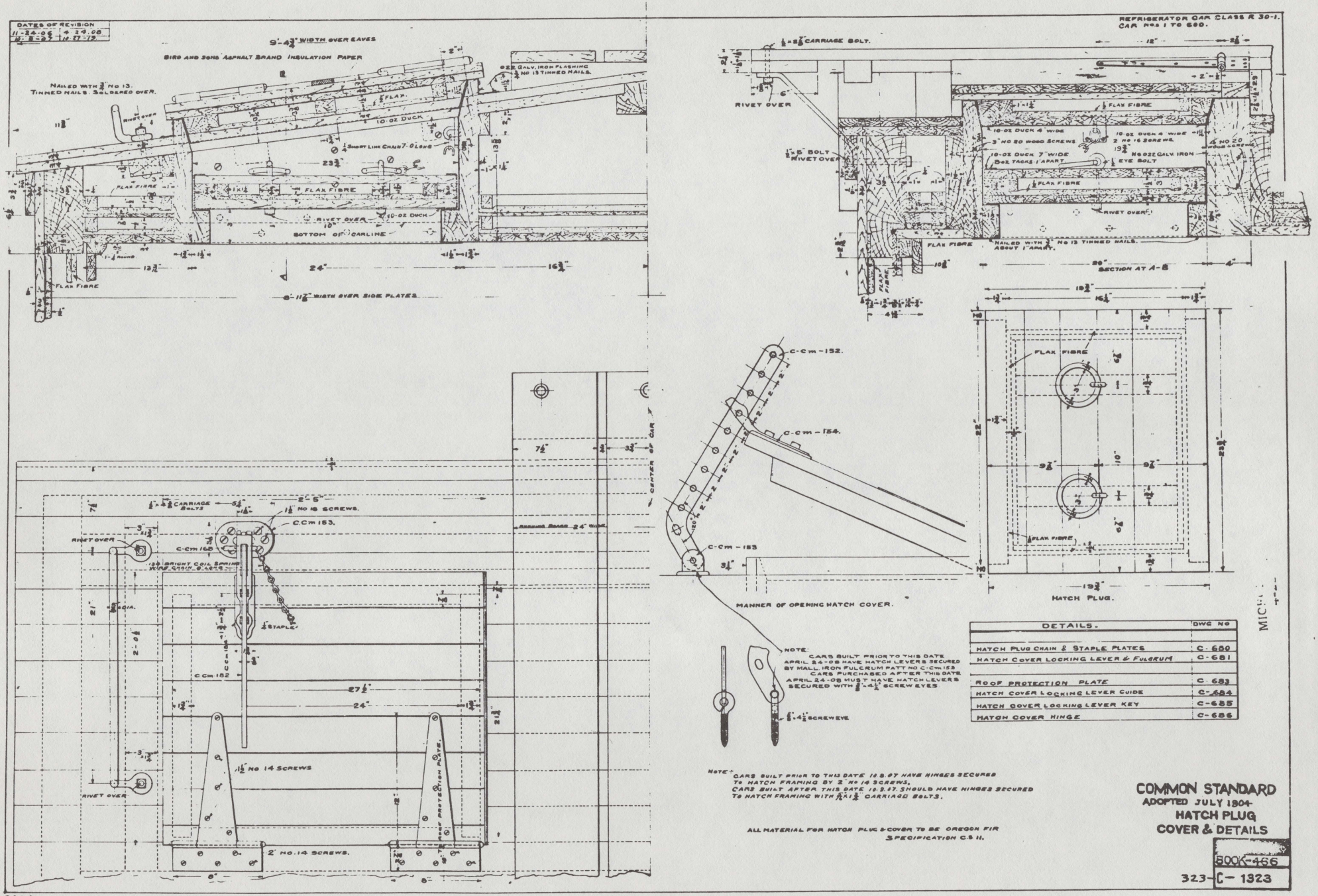
WEIGHT OF VENTILATORS PER CAR - 437 62 POUNDS (AVERAGE)
" " HATCH PLUGS (PER CAR - 226.12 " "

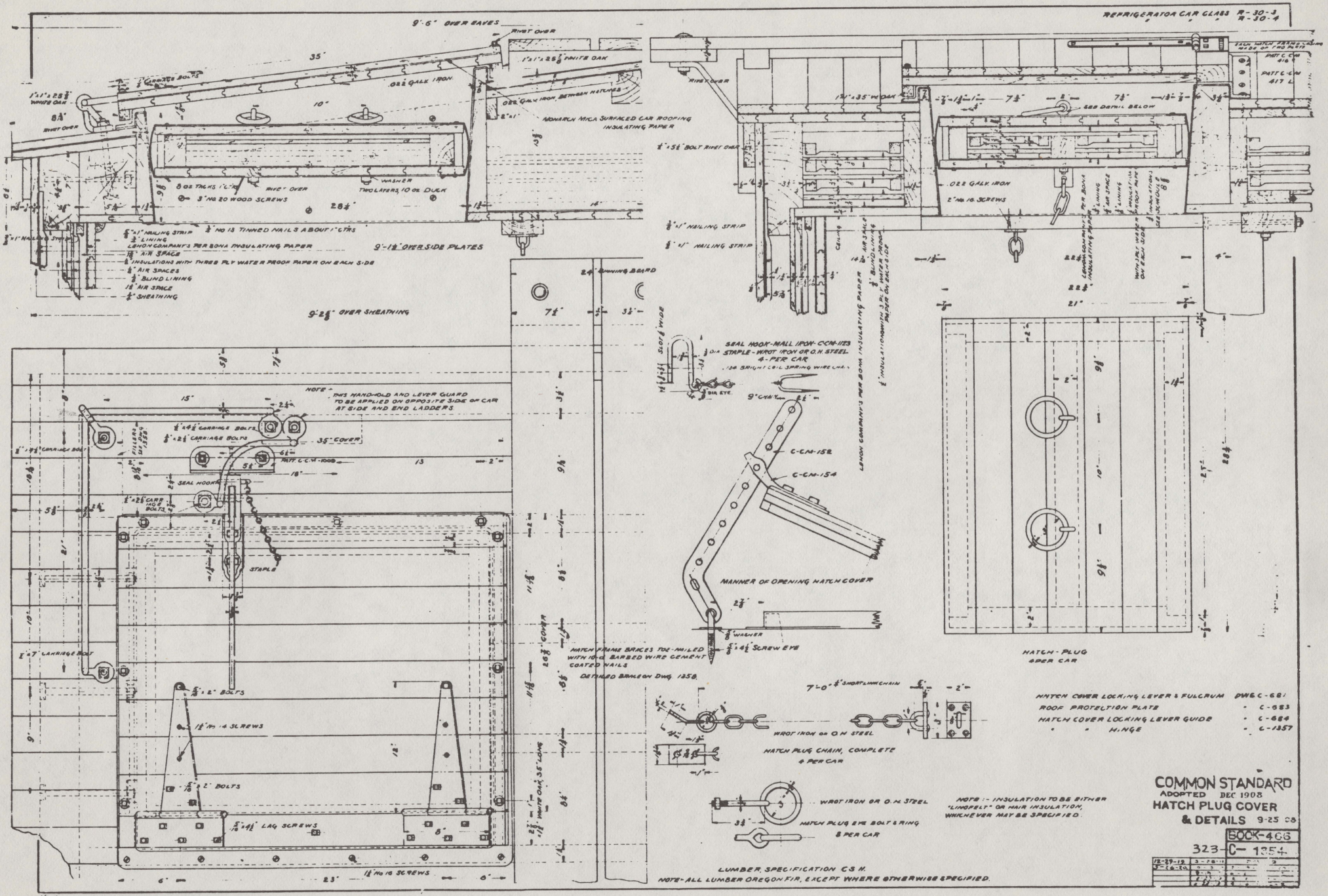
CONSTRUCTION
AND
HATCH V...
& INDI...

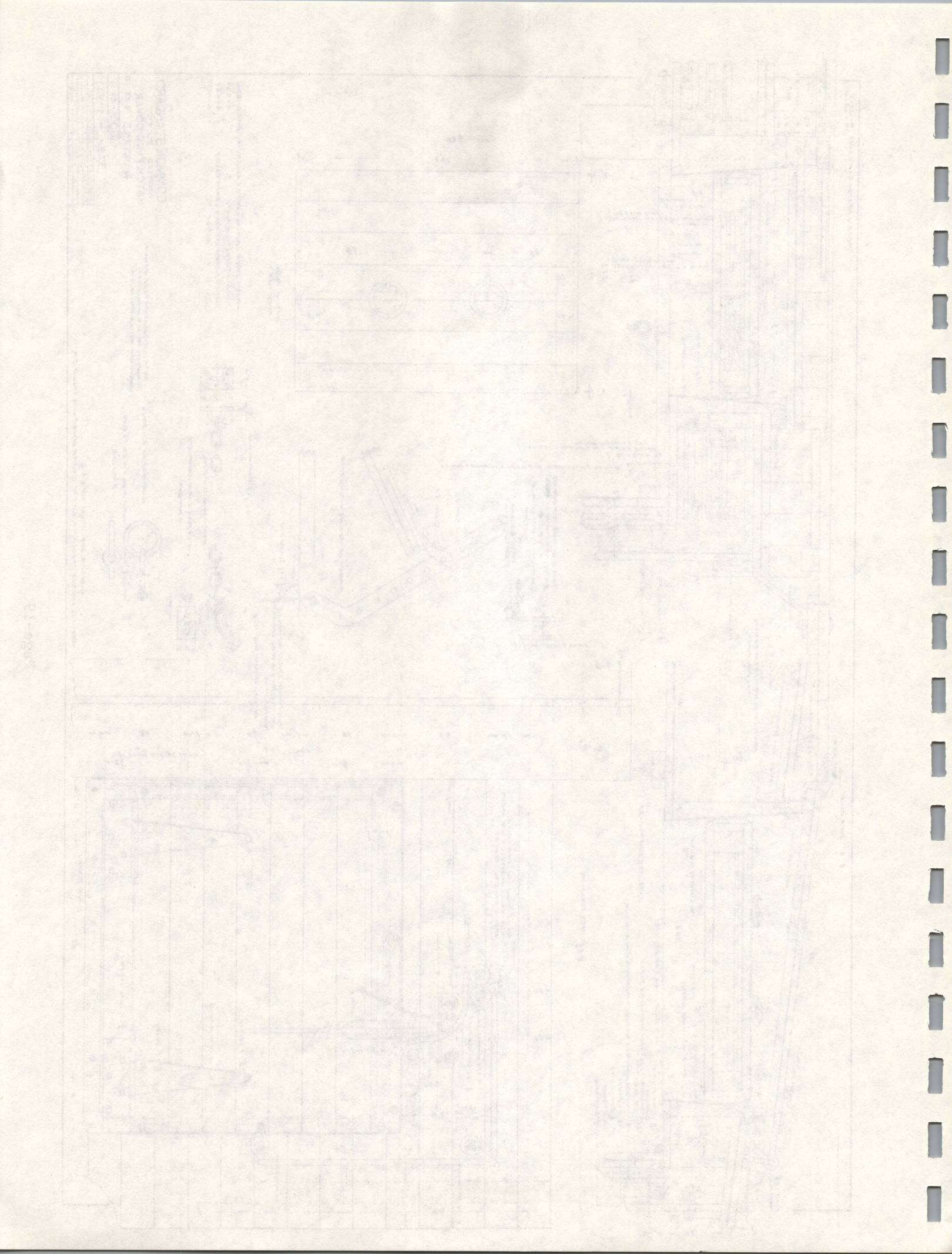
324 - -

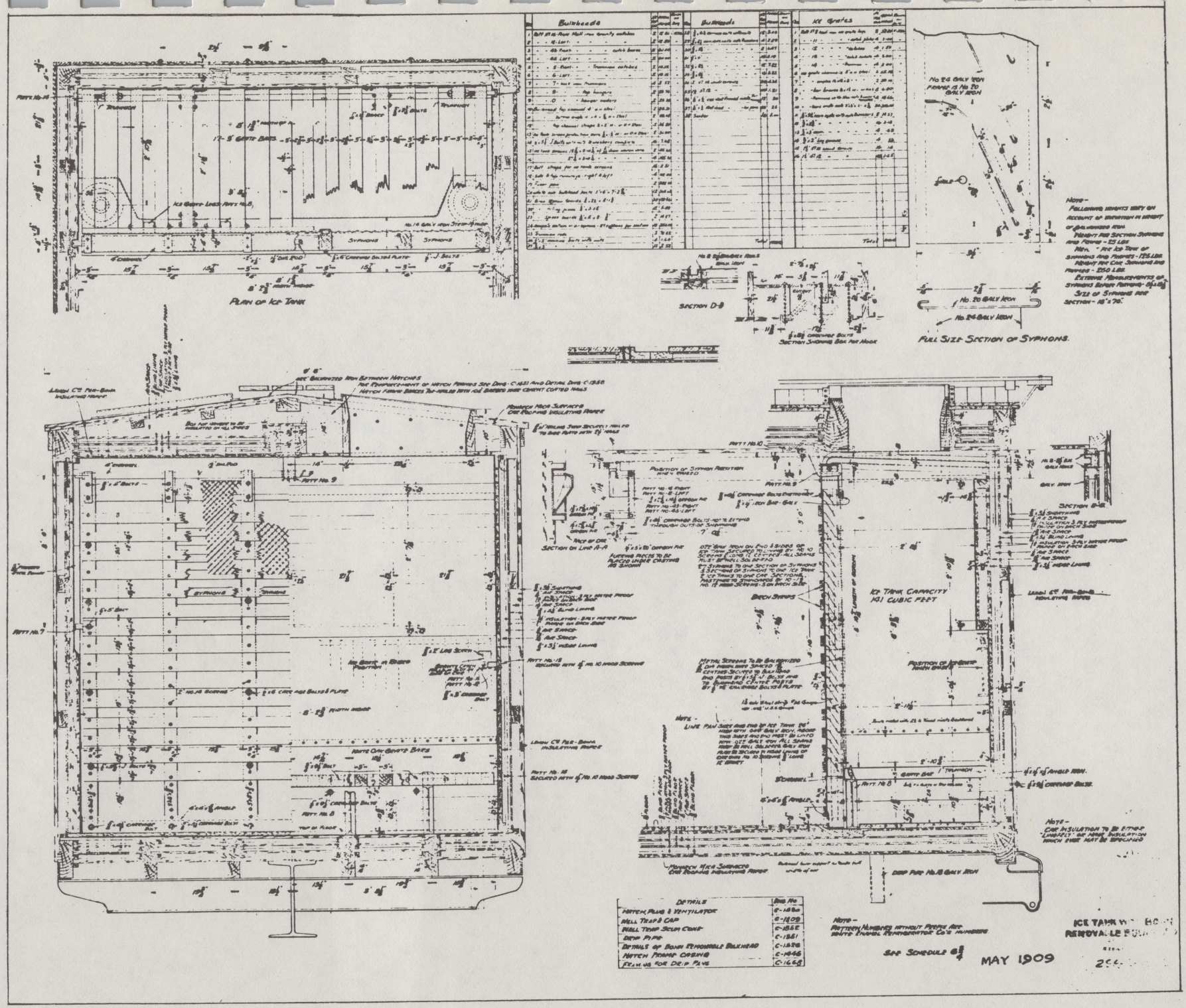


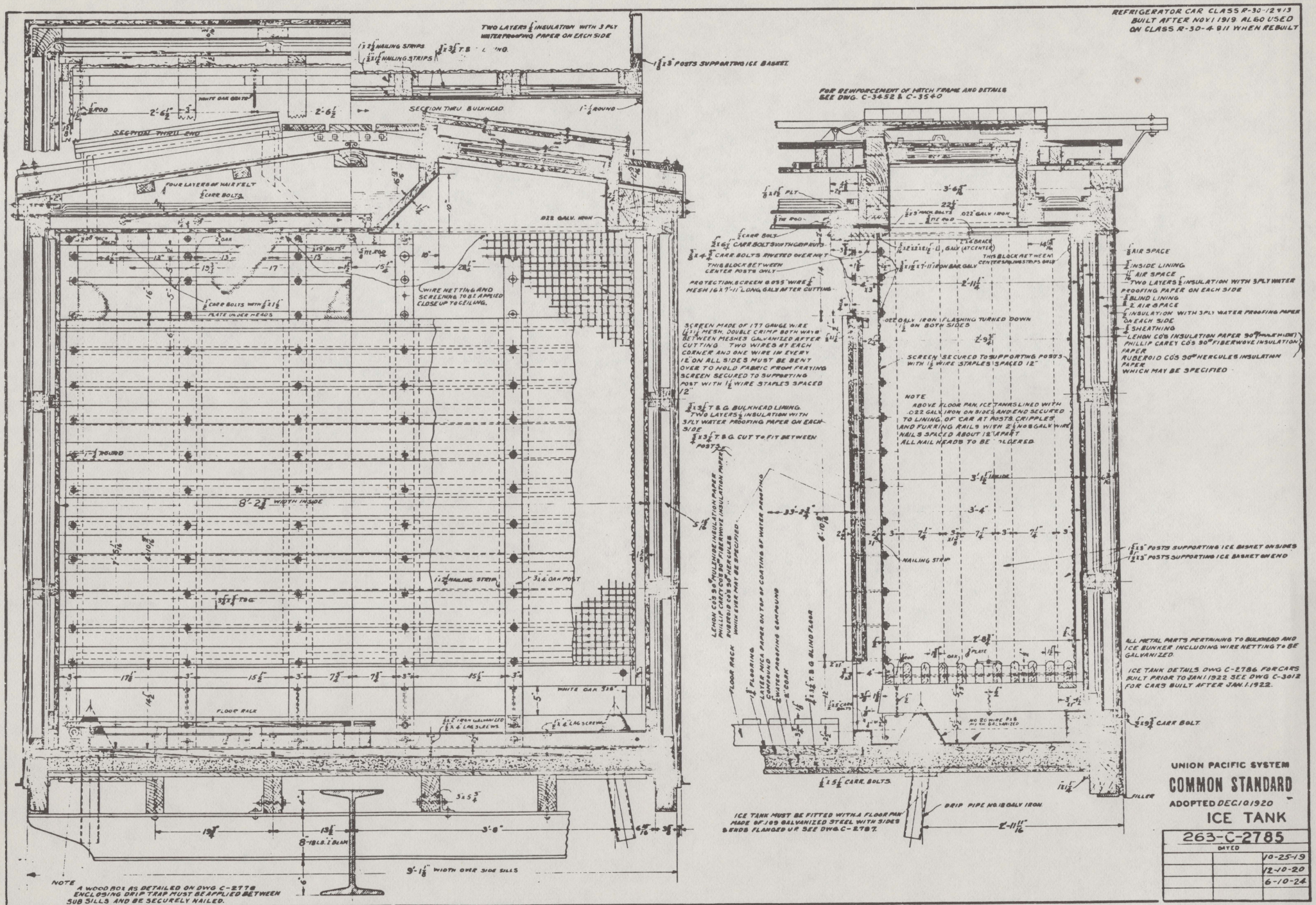

REFRIGERATOR CAR CLASS R-30-12,13,14 PURCHASED AFTER JULY 1, 1933
REFRIGERATOR CARS CLASS R-40-2 & R-40-4
THIS SECTION FOR R-40-4
UNION PACIFIC SYSTEM
COMMON STANDARD
ADOPTED DEC 10, 1930
RQOF
HATCH COVER & PLUG
324 C 3302
4-8-31 5.75
5-33 10.25
REF. AHEAD - DRG. 324 C 5330

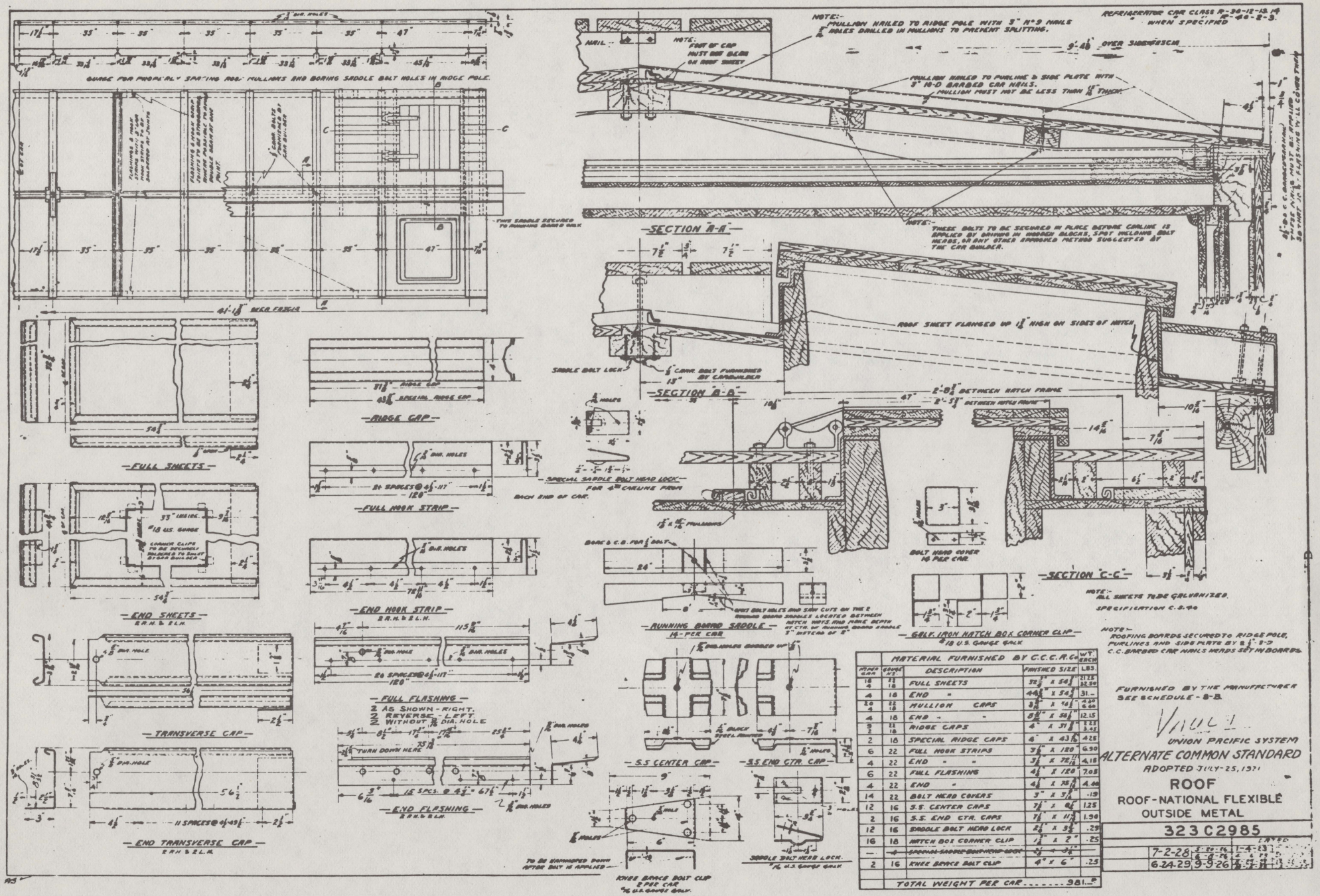

DATES OF REVISION
11-24-06 & 2-4-08
10-8-09 & 10-27-19
REFRIGERATOR CAR CLASS R 30-1.
CAR Nos 1 TO 600.
9'-4⅜" WIDTH OVER EAVES
BIRD AND SONS ASPHALT BRAND INSULATION PAPER
NAILED WITH ¾" No 13 TINNED NAILS. SOLDERED OVER.
22 GALV. IRON FLASHING
No 13 TINNED NAILS.
FLAX
10-OZ DUCK
FLAX FIBRE
RIVET OVER
BOTTOM OF CARLINE
6'-11⅝" WIDTH OVER SIDE PLATES.
⅝" CARRIAGE BOLT.
RIVET OVER
⅝" BOLT RIVET OVER
10-OZ DUCK 4" WIDE
3" No 20 WOOD SCREWS
10-OZ DUCK 7" WIDE
BOX TACKS-1" APART
10-OZ DUCK 4" WIDE
2 No 16 SCREWS.
No 022 GALV IRON EYE BOLT
No 20 WOOD SCREWS
NAILED WITH ¾" No 13 TINNED NAILS. ABOUT 1" APART.
SECTION AT A-B
C-C m-152.
C-C m-154.
C-C m-153
MANNER OF OPENING HATCH COVER.
FLAX FIBRE
HATCH PLUG.
⅝" CARRIAGE BOLTS
1½" No 16 SCREWS.
C.C m 153.
RIVET OVER
C-C m 155
¾" BRIGHT COIL SPRING WIRE CHAIN 8 LINKS
¾" STAPLE
C C m 152
1½" No 14 SCREWS
RIVET OVER
2" No 14 SCREWS.
ROOF PROTECTION PLATE.
CENTER OF CAR
ROOFING BOARD 24" WIDE
NOTE:
CARS BUILT PRIOR TO THIS DATE APRIL 24-08 HAVE HATCH LEVERS SECURED BY MALL IRON FULCRUM PATT NO C-C m 159
CARS PURCHASED AFTER THIS DATE APRIL 24-08 MUST HAVE HATCH LEVERS SECURED WITH ⅝"-4½" SCREW EYES
⅝"-4½" SCREWEYE
NOTE:
CARS BUILT PRIOR TO THIS DATE 10.8.09 HAVE HINGES SECURED TO HATCH FRAMING BY 2 No 14 SCREWS.
CARS BUILT AFTER THIS DATE 10.9.19 SHOULD HAVE HINGES SECURED TO HATCH FRAMING WITH ⅝"x1½" CARRIAGE BOLTS.
ALL MATERIAL FOR HATCH PLUG & COVER TO BE OREGON FIR SPECIFICATION C.S 11.
DETAILS.
DWG No
HATCH PLUG CHAIN & STAPLE PLATES C-680
HATCH COVER LOCKING LEVER & FULCRUM C-681
ROOF PROTECTION PLATE C-683
HATCH COVER LOCKING LEVER GUIDE C-684
HATCH COVER LOCKING LEVER KEY C-685
HATCH COVER HINGE C-686
COMMON STANDARD
ADOPTED JULY 1904
HATCH PLUG
COVER & DETAILS
BOOK-466
323-C-1323
S.C.R.Jr.
W.S.


REFRIGERATOR CAR CLASS R-30-3 R-30-4
9'-6" OVER EAVES
9'-1½" OVER SIDE PLATES
9'-2⅜" OVER SHEATHING
.022 GALV. IRON
MONARCH MICA SURFACED CAR ROOFING INSULATING PAPER
SEAL HOOK-MALL IRON-C.C.M.-1123
STAPLE-WROT. IRON OR O.H. STEEL
4-PER CAR
C-C.M.-152
C-C.M.-154
MANNER OF OPENING HATCH COVER
HATCH FRAME BRACES TOE-NAILED WITH 10d. BARBED WIRE CEMENT COATED NAILS
DETAILED BELOW ON DWG. 1358
HATCH-PLUG 6 PER CAR
HATCH PLUG CHAIN, COMPLETE 4 PER CAR
WROT. IRON OR O.H. STEEL
HATCH PLUG EYE BOLT & RING 8 PER CAR
HATCH COVER LOCKING LEVER & FULCRUM DWG. C-681
ROOF PROTECTION PLATE " C-683
HATCH COVER LOCKING LEVER GUIDE " C-684
" " HINGE " C-1357
NOTE:- INSULATION TO BE EITHER "LINOFELT" OR HAIR INSULATION, WHICHEVER MAY BE SPECIFIED.
LUMBER, SPECIFICATION C.S.H.
NOTE-ALL LUMBER OREGON FIR, EXCEPT WHERE OTHERWISE SPECIFIED.
COMMON STANDARD
ADOPTED DEC 1908
HATCH PLUG COVER
& DETAILS 9-25 08
BOOK-466
323-C-1354




Bulkheads
Bulkheads
Ice Gratings
PLAN OF ICE TANK
SECTION D-B
SECTION ON LINE A-A
SECTION E-E
FULL SIZE SECTION OF SYPHONS.
ICE TANK CAPACITY 181 CUBIC FEET
MAY 1909


REFRIGERATOR CAR CLASS R-30-12 & 13
BUILT AFTER NOV. 1919. ALSO USED
ON CLASS R-30-4 & 11 WHEN REBUILT
TWO LAYERS 1/4" INSULATION WITH 3 PLY
WATERPROOFING PAPER ON EACH SIDE
SECTION THRU BULKHEAD
SECTION THRU END
FOUR LAYERS OF HAIR FELT
WIRE NETTING AND
SCREENING TO BE APPLIED
CLOSE UP TO CEILING.
PLATE UNDER HEADS
WHITE OAK SILL
WHITE OAK 3/16"
FLOOR RACK
8'-2 1/4" WIDTH INSIDE
8-18 LB. I BEAM
9'-1 1/8" WIDTH OVER SIDE SILLS
NOTE A WOOD BOX AS DETAILED ON DWG C-2778
ENCLOSING DRIP TRAP MUST BE APPLIED BETWEEN
SUB SILLS AND BE SECURELY NAILED.
FOR REINFORCEMENT OF HATCH FRAME AND DETAILS
SEE DWG. C-3452 & C-3540
SCREEN MADE OF 17 GAUGE WIRE
1/2" MESH, DOUBLE CRIMP BOTH WAYS
BETWEEN MESHES GALVANIZED AFTER
CUTTING. TWO WIRES AT EACH
CORNER AND ONE WIRE IN EVERY
12" ON ALL SIDES MUST BE BENT
OVER TO HOLD FABRIC FROM FRAYING
SCREEN SECURED TO SUPPORTING
POST WITH 1/2" WIRE STAPLES SPACED
12"
PROTECTION SCREEN 0.055" WIRE
MESH 16 X 7'-11" LONG, GALV. AFTER CUTTING
THIS BLOCK BETWEEN
CENTER POSTS ONLY
.022 GALV. IRON FLASHING TURNED DOWN
1/2" ON BOTH SIDES
SCREEN SECURED TO SUPPORTING POSTS
WITH 1/2" WIRE STAPLES SPACED 12"
NOTE
ABOVE FLOOR PAN, ICE TANK IS LINED WITH
.022 GALV. IRON ON SIDES AND END SECURED
TO LINING OF CAR AT POSTS, CRIPPLES
AND FURRING RAILS WITH 2 1/2" NO. 8 GALV. WIRE
NAILS SPACED ABOUT 12" APART.
ALL NAIL HEADS TO BE CLINCHED.
NAILING STRIP
FLOOR RACK
1" FLOORING
LAYER MICA PAPER ON TOP OF COATING OF WATER PROOFING
COMPOUND
WATER PROOFING COMPOUND
2" CORK
1 1/2" T. & G. BLIND FLOOR
LEHON CO'S 30# INSULINE INSULATION PAPER
PHILLIP CAREY CO'S 30# FIBERWOVE INSULATION PAPER
RUBEROID CO'S 30# HERCULES INSULATION PAPER
WHICH EVER MAY BE SPECIFIED
ICE TANK MUST BE FITTED WITH A FLOOR PAN
MADE OF 10# GALVANIZED STEEL WITH SIDES
& ENDS FLANGED U.P. SEE DWG. C-2787.
DRIP PIPE NO. 18 GALV. IRON
AIR SPACE
INSIDE LINING
AIR SPACE
TWO LAYERS 1/4" INSULATION WITH 3 PLY WATER
PROOFING PAPER ON EACH SIDE
BLIND LINING
2 AIR SPACE
1/4" INSULATION WITH 3 PLY WATER PROOFING PAPER
ON EACH SIDE
1/2" SHEATHING
LEHON CO'S INSULATION PAPER 30# (DOUBLE SIDE)
PHILLIP CAREY CO'S 30# FIBERWOVE INSULATION
PAPER
RUBEROID CO'S 30# HERCULES INSULATION
PAPER
WHICH MAY BE SPECIFIED
ALL METAL PARTS PERTAINING TO BULKHEAD AND
ICE BUNKER INCLUDING WIRE NETTING TO BE
GALVANIZED.
ICE TANK DETAILS DWG C-2786 FOR CARS
BUILT PRIOR TO JAN. 1922. SEE DWG C-3012
FOR CARS BUILT AFTER JAN. 1922.
UNION PACIFIC SYSTEM
COMMON STANDARD
ADOPTED DEC. 1920
ICE TANK
263-C-2785
DATED
10-25-19
12-10-20
6-10-24


REFRIGERATOR CAR CLASS R-30-12-13 M
R-40-8-3
WHEN SPECIFIED
GUAGE FOR PROPERLY SPACING ROOF MULLIONS AND BORING SADDLE BOLT HOLES IN RIDGE POLE.
SECTION A-A
SECTION B-B
SECTION C-C
RIDGE CAP
FULL SHEETS
FULL HOOK STRIP
END SHEETS
END HOOK STRIP
TRANSVERSE CAP
FULL FLASHING
END FLASHING
END TRANSVERSE CAP
RUNNING BOARD SADDLE
14 PER CAR
GALV. IRON HATCH BOX CORNER CLIP
SPECIAL SADDLE BOLT HEAD LOCK
FOR 4TH CARLINE FROM
EACH END OF CAR.
BOLT HEAD COVER
14 PER CAR.
S.S. CENTER CAP
S.S. END CTR. CAP
SADDLE BOLT HEAD LOCK.
KNEE BRACE BOLT CLIP
2 PER CAR
ROOF SHEET FLANGED UP 1/2" HIGH ON SIDES OF HATCH
2'-8 1/2" BETWEEN HATCH FRAME
2'-5" BETWEEN HATCH FRAME
NOTE:- MULLION NAILED TO RIDGE POLE WITH 3" N°9 NAILS
NOTE:- MULLION NAILED TO PURLINE & SIDE PLATE WITH 3" 10-D BARBED CAR NAILS.
NOTE:- THESE BOLTS TO BE SECURED IN PLACE BEFORE CARLINE IS APPLIED BY DRIVING IN WOODEN BLOCKS, SPOT WELDING BOLT HEADS, OR ANY OTHER APPROVED METHOD SUGGESTED BY THE CAR BUILDER.
NOTE:- ALL SHEETS TO BE GALVANIZED. SPECIFICATION C.S.90
NOTE:- ROOFING BOARDS SECURED TO RIDGE POLE, PURLINES AND SIDE PLATE BY 2 1/2" S-D C.C. BARBED CAR NAILS HEADS SET IN BOARDS.

MATERIAL FURNISHED BY C.C.C.A.Co				
NEW CAR	GAUGE U.S.	DESCRIPTION	FINISHED SIZE	WT. EACH LBS.
18	22	FULL SHEETS	32 1/2" X 54 1/2"	21.15
4	18	"	" " "	32.50
4	18	END "	44 1/2" X 54 1/2"	31.-
20	22	MULLION CAPS	8 1/2" X 14 1/2"	4.30
8	18	" "	" " "	6.60
4	18	END " "	8 1/2" X 54"	12.15
8	22	RIDGE CAPS	4" X 31 1/2"	3.23
2	18	" "	" " "	5.45
2	18	SPECIAL RIDGE CAPS	4" X 43 1/2"	4.25
6	22	FULL HOOK STRIPS	3 1/2" X 120"	6.90
4	22	END " "	3 1/2" X 72 11/16"	4.18
6	22	FULL FLASHING	4 1/2" X 120"	7.05
4	22	END "	4 1/2" X 75 3/8"	4.46
14	22	BOLT HEAD COVERS	3" X 3 1/4"	.19
12	16	S.S. CENTER CAPS	7 1/2" X 9 1/2"	1.25
2	16	S.S. END CTR. CAPS	7 1/2" X 11 1/2"	1.50
12	16	SADDLE BOLT HEAD LOCK	2 1/2" X 3 1/2"	.29
16	18	HATCH BOX CORNER CLIP	1 1/2" X 2"	.25
—	—	SPECIAL SADDLE BOLT HEAD LOCK	2 1/2" X 3 1/2"	—
2	16	KNEE BRACE BOLT CLIP	4" X 6"	.25
		TOTAL WEIGHT PER CAR		981.-

FURNISHED BY THE MANUFACTURER SEE SCHEDULE - B-B.

UNION PACIFIC SYSTEM

ALTERNATE COMMON STANDARD

ADOPTED JULY-25, 1921

ROOF

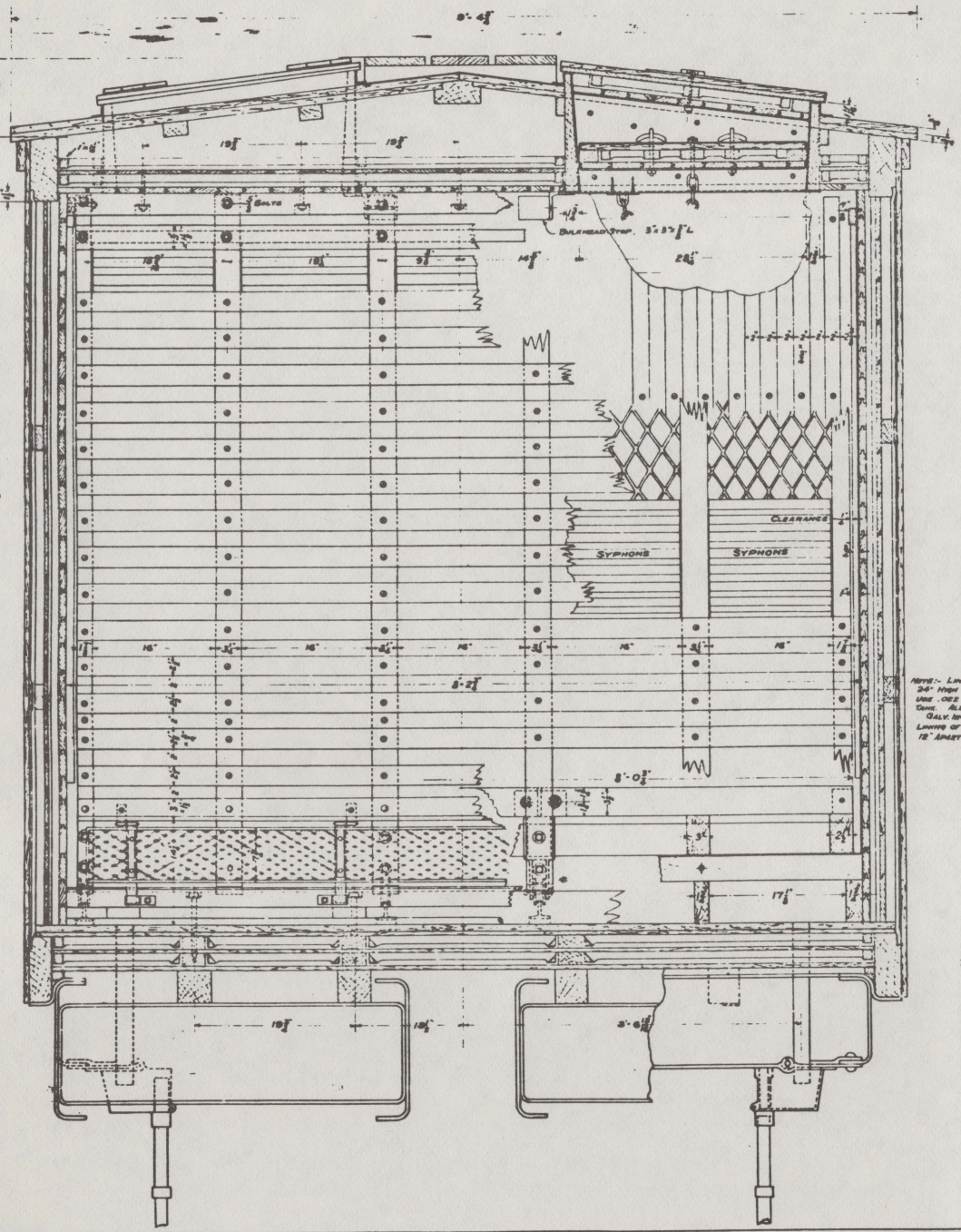
ROOF-NATIONAL FLEXIBLE

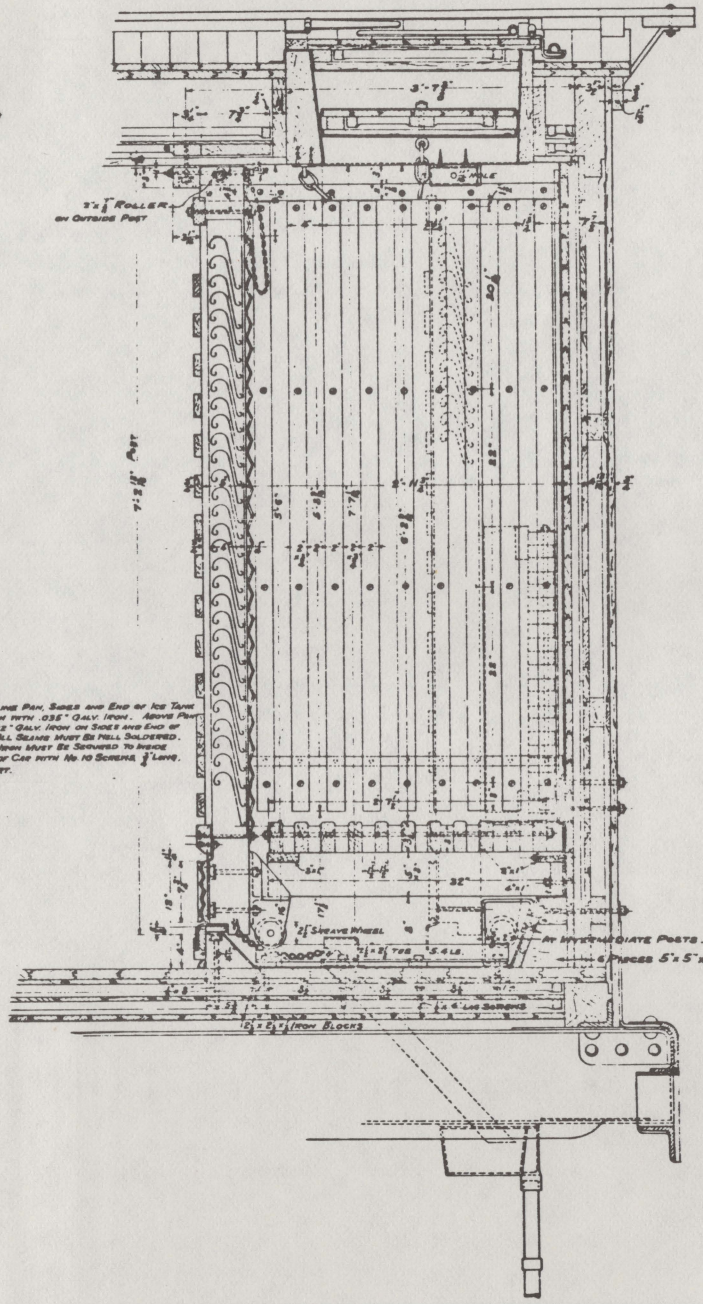
OUTSIDE METAL

323 C2985

LAYED		
7-2-28	5-30-16	1-4-23
6-24-29	9-5-26	5-5-31

REFRIGERATOR CAR CLASS R-30-2
WHEN EQUIPPED WITH ICE TANK HAVING
CAPACITY OF 145 CUBIC FEET.
CARS 1701 TO 4600 AND 4705 TO 6600.

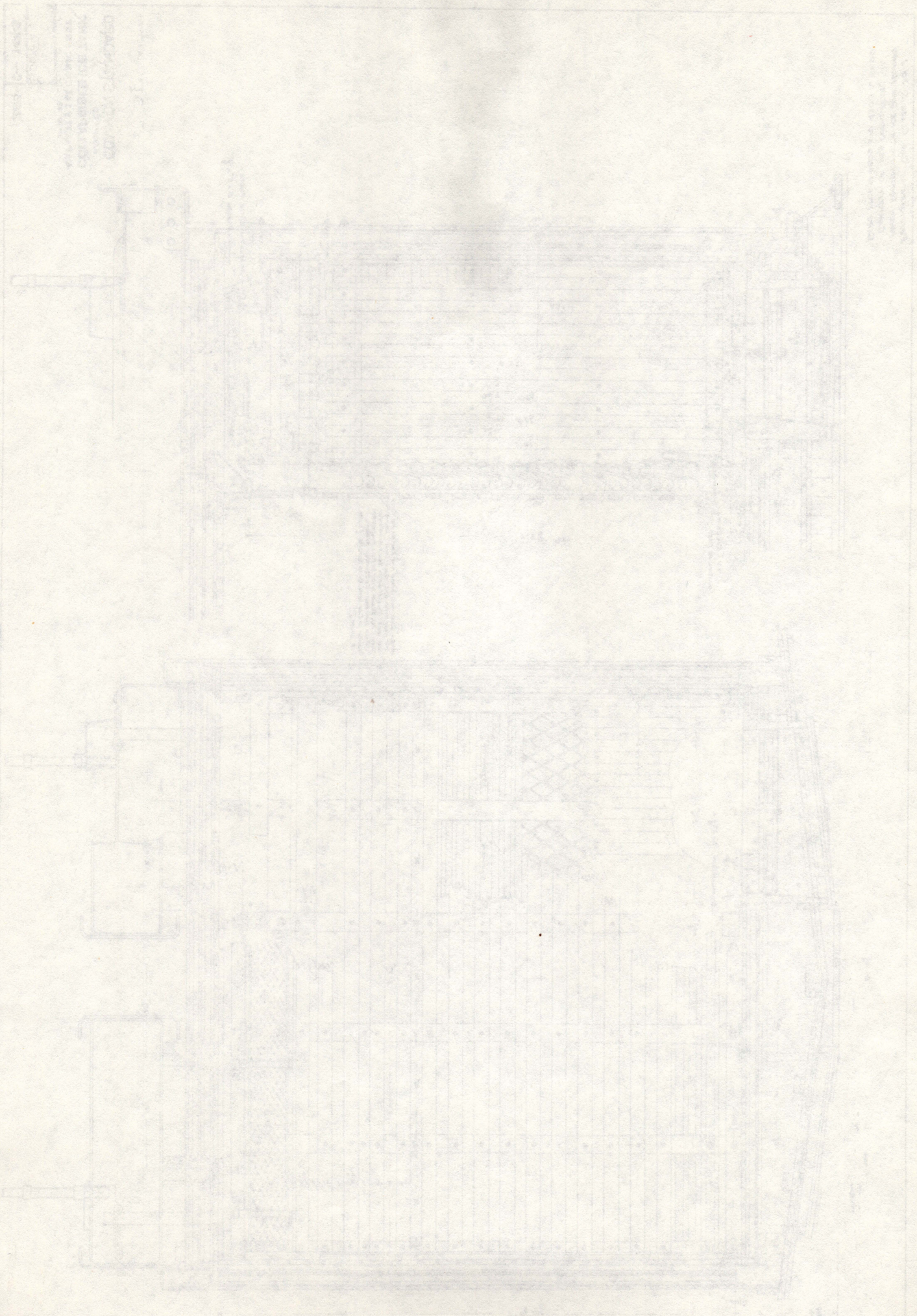




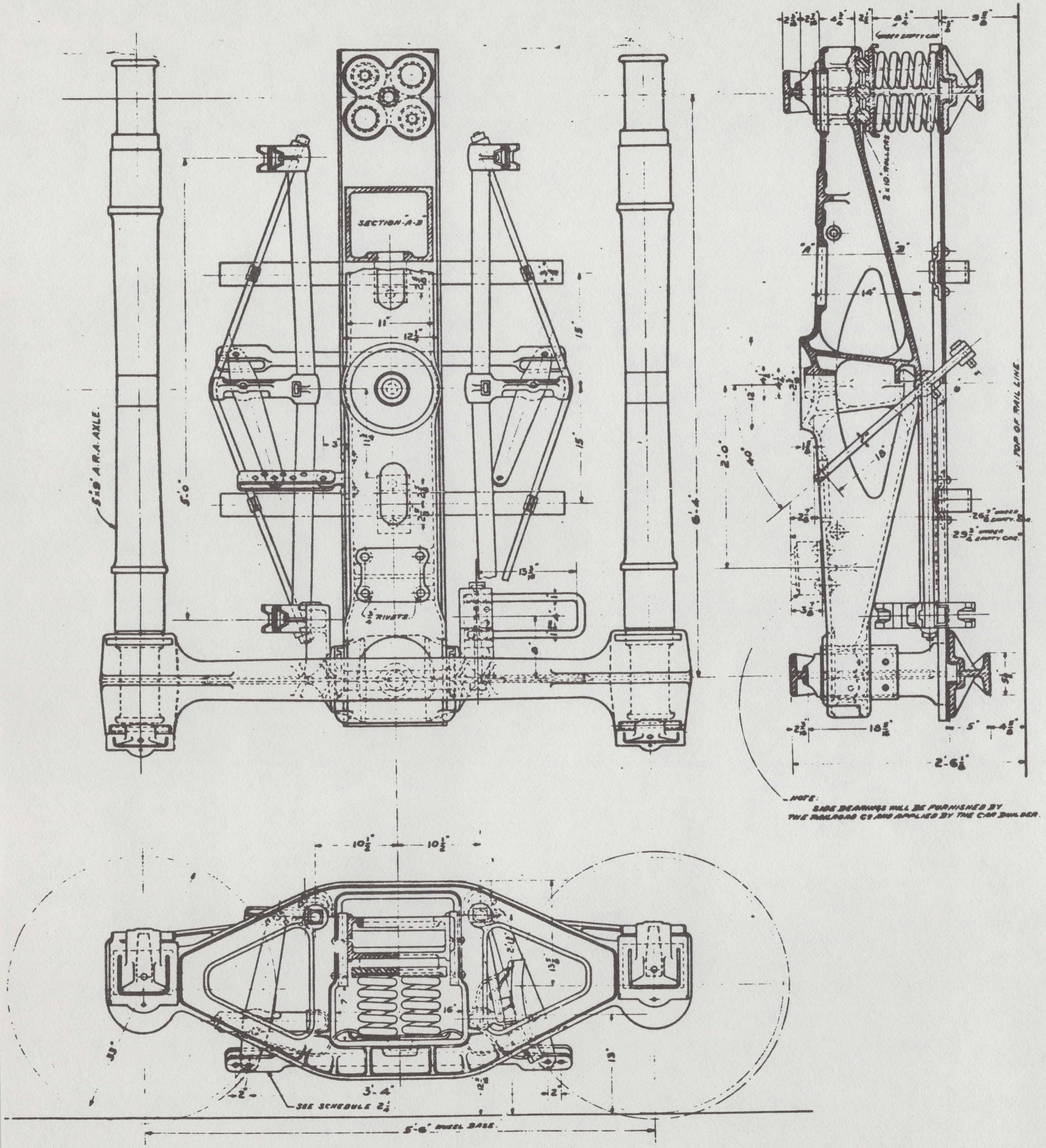
NOTE:- LINE PAN, SIDES AND END OF ICE TANK 24" HIGH WITH .035" GALV. IRON. ABOVE PAN USE .052" GALV. IRON ON SIDES AND END OF TANK. ALL SEAMS MUST BE WELL SOLDERED. GALV. IRON MUST BE SECURED TO INSIDE LINING OF CAR WITH No 10 SCREWS 3/4" LONG. 12" APART.

COMMON STANDARD
ADOPTED
COLLAPSIBLE ICE TANK
CAPACITY 145 CUBIC FEET
11-19-08

BOOK-4
263-C- 1443



80,000 LBS. CAPACITY TRUCK
FOR 60,000 LBS. CAPACITY REFRIGERATOR CARS–
PURCHASED AFTER OCT. 1, 1923.



NAME OF PART. — COMMON STANDARD — 1ST ALTERNATE COM. ST'D. — 2ND ALTERNATE COM. ST'D. — 3RD ALTERNATE COM. ST'D.

- AXLE
- BRAKE BEAM
- " SUPPORT & CLIP
- " HANGER
- " " PIN
- " SHOE
- " KEY
- " LEVER PINS
- DEAD LEVER ANCHOR
- " STOP
- DUST GUARD
- JOURNAL BEARING
- " WEDGE
- BOX LID
- LIVE AND DEAD TRUCK LEVER
- ROLLER
- SEAT & SPRING CAP.
- SLIDING CHAINS - NEW BEAMS
- " " FOR REPAIRS.
- SPRING PLANK
- TRUCK BOLSTER
- LOWER CONNECTION
- SIDE FRAME
- SPRING
- WHEEL - 33 DIA.

NOTE:- PATT. NO. WITH PREFIX "C" IS AMERICAN BRAKE SHOE AND FOUNDRY CO.'S NO.

TRUCK WITH BARBER ROLLER DEVICE ADOPTED MARCH 29, 1912.

UNION PACIFIC SYSTEM

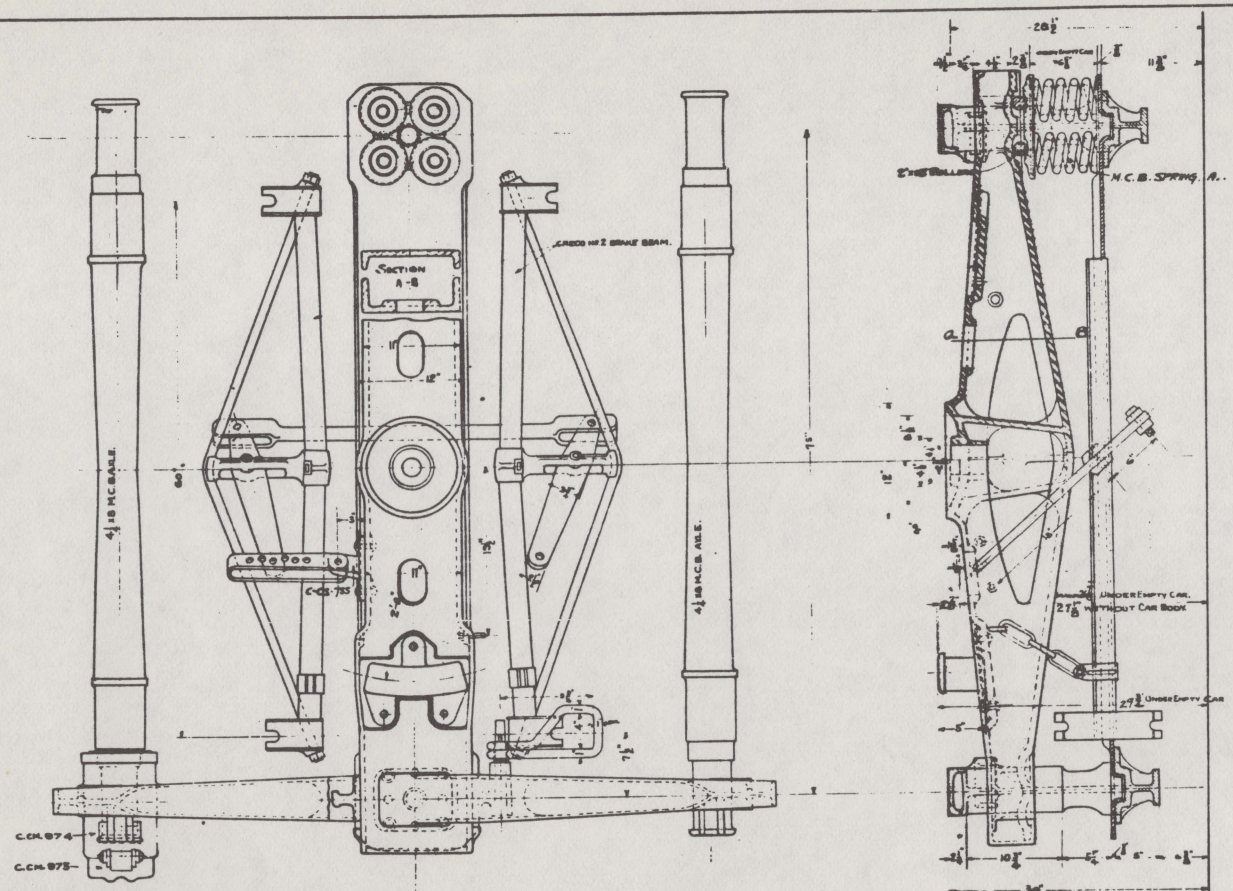
COMMON STANDARD

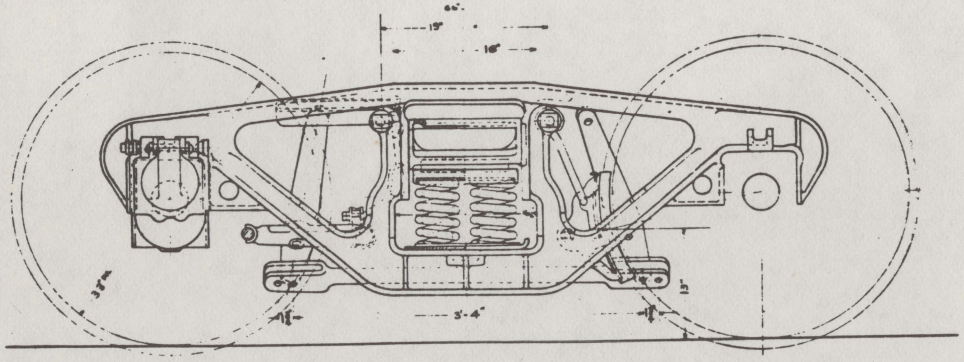
ADOPTED

TRUCK WITH BETTENDORF SIDE FRAME.

423-C-3205

60000 LBS CAPY. REFRIGERATOR CARS CLASS R-30-3,4,5,6,7
WEIGHT OF TRUCK ABOUT 57300 LBS. R-30-8,9





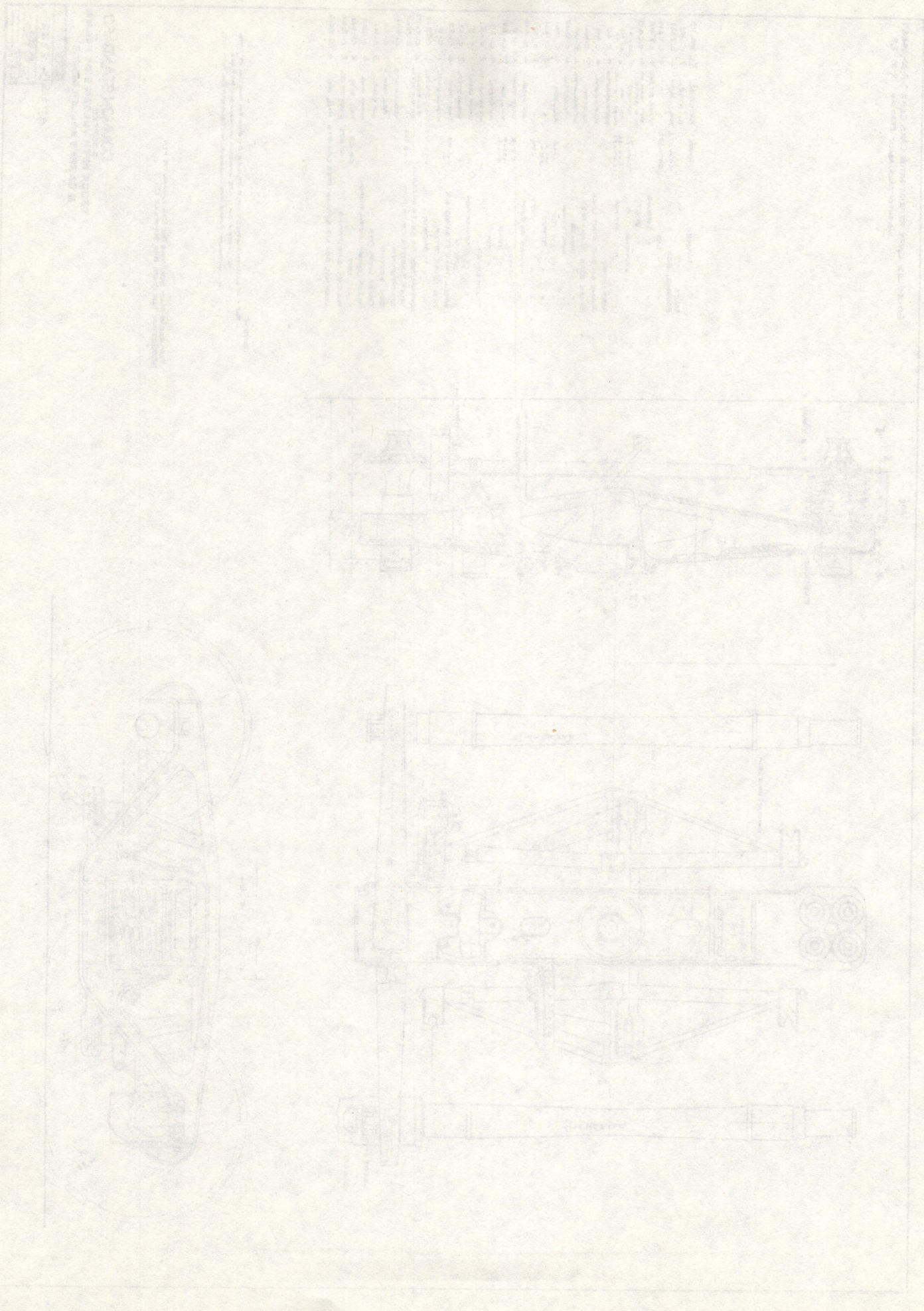
NAME	MARK	MATERIAL	No. REQ'D.	DWG. No.
AXLES		O.H. STEEL	2	C-42
JOURNAL BOX	C-CM-974	MALL. IRON	4	C.2411
" " LID	C-CM-975	" "	4	C.2413
" " " SPRING		SPRING STEEL	4	C.2415
" " BOLT		WROT IRON OR O.H. STEEL	4	C.2415
" BEARING	C-CP-22	BRASS	4	C-47
" " WEDGE	C-CM-23 C-CS-73	MALL. IRON OR O.H. STEEL	4	C-23 C.73
DUST GUARD		BRASS WOOD OR FELT	4	C-69
JOURNAL BOX BOLT & NUT LOCK		W.I. OR O.H. STEEL	4	C-1112
BRAKE BEAM (CHICO No 2)		O.H. STEEL	2	C-1801
" " HANGER		W.I. OR O.H. STEEL	4	C-1149
" " SAFETY CHAIN		O.H. STEEL	4	C-1802
" " " CLIP	261	MALL. IRON	4	C-1801
" " STRUT	1241-R 1242-L	"	2	C-1801
" " " KEY	264	" "	2	C-1801
" HANGER PIN & KEY		O.H. STEEL	4	C-1300
" SHOE	C-C-12	CAST IRON	4	C-8
" " HEAD	1295-R. 1296-L.	MALL. IRON	2 R. 2 L.	C-1801
" " KEY		O.H. STEEL	4	C-1
TRUCK LEVER		W.I. OR O.H. STEEL	2	C-5
" " CONNECTION		WROT. IRON	1	C-3
" SPRING		SPRING STEEL	2	C-52
WHEEL (STEEL) 33" DIA. GISLE'S.	C-C-68	CAST IRON	4	C-73
DEAD LEVER STOP		W.I. OR O.H. STEEL	1	C-6
" " ANCHOR	C-CS-755	CAST STEEL	1	C-2269
JOURNAL BOX TIE BOLT & NUT LOCK		WROT. IRON OR O.H. STEEL	4	C-2177
TRUCK BOLSTER & CENTER PLATE	C-CS-754	" "	1	C-2269
SPRING PLANK		W.I. OR O.H. STEEL	1	C-1307
SIDE BEARING		MALL. IRON	2	C-25
TRUCK LEVER PINS		O.H. STEEL	5	C-141
ROLLER (BARBER LATERAL MOTION)		MALLEABLE STEEL	4	C-1368
" SEAT	C-B-65	MALL. IRON	2	C-1368
VULCAN SIDE FRAME	C-CS-693	CAST STEEL	2	C-2168
JOURNAL BOX LID SPRING LEVER	C-CM-976	MALL. IRON	4	C.2415

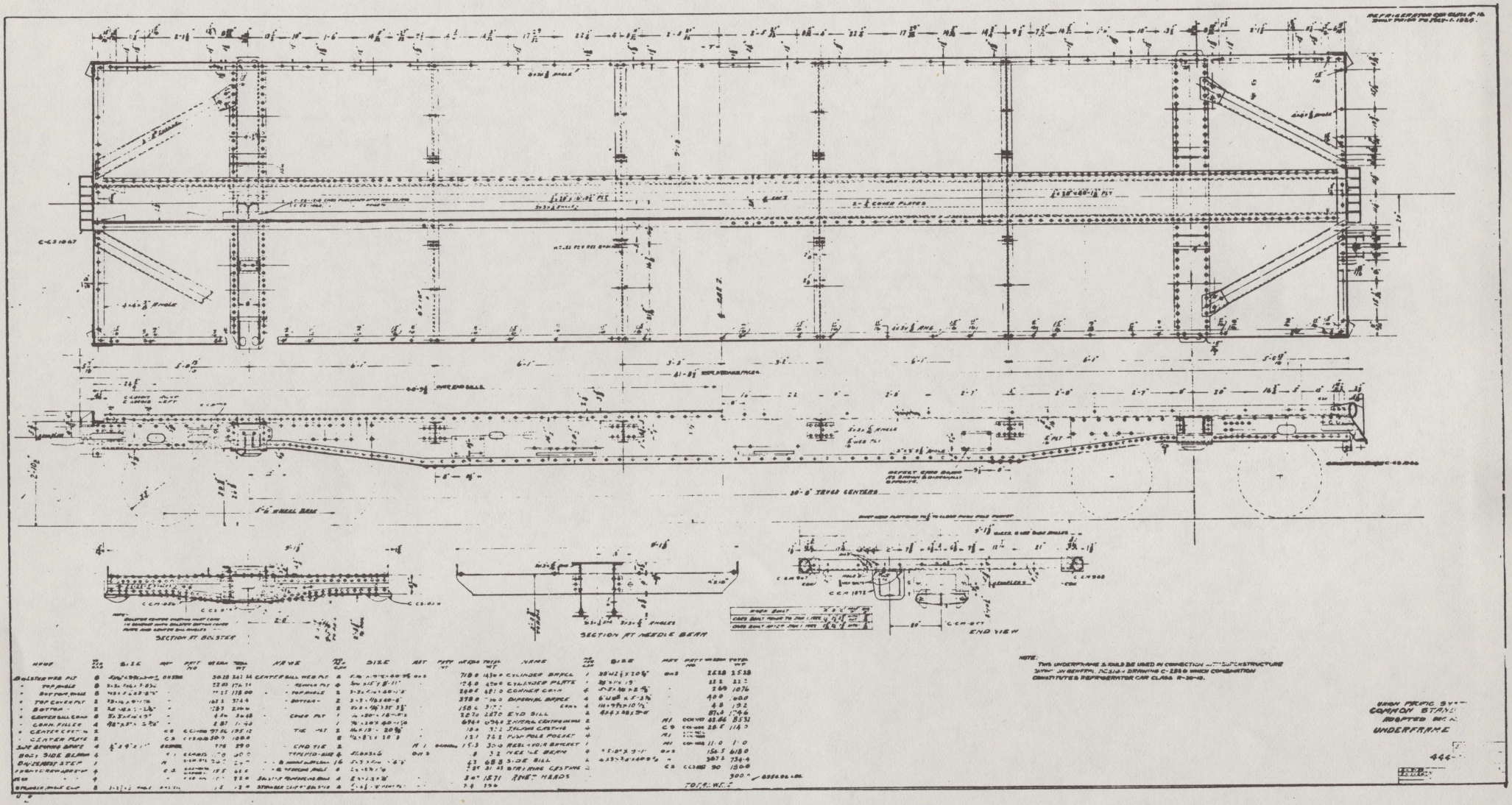
NOTE:-
PATT. NOS. WITH PREFIX C-CM, C-CP, C-CS, B C C MR RAIL ROAD CAR PATT. NOS.
" " " PREFIX CM. ARE STANDARD CAR TRUCK CO'S. PATT. NOS.
" " WITHOUT PREFIX ARE CHICAGO RAILWAY EQUIPMENT CO'S PATT. NOS.

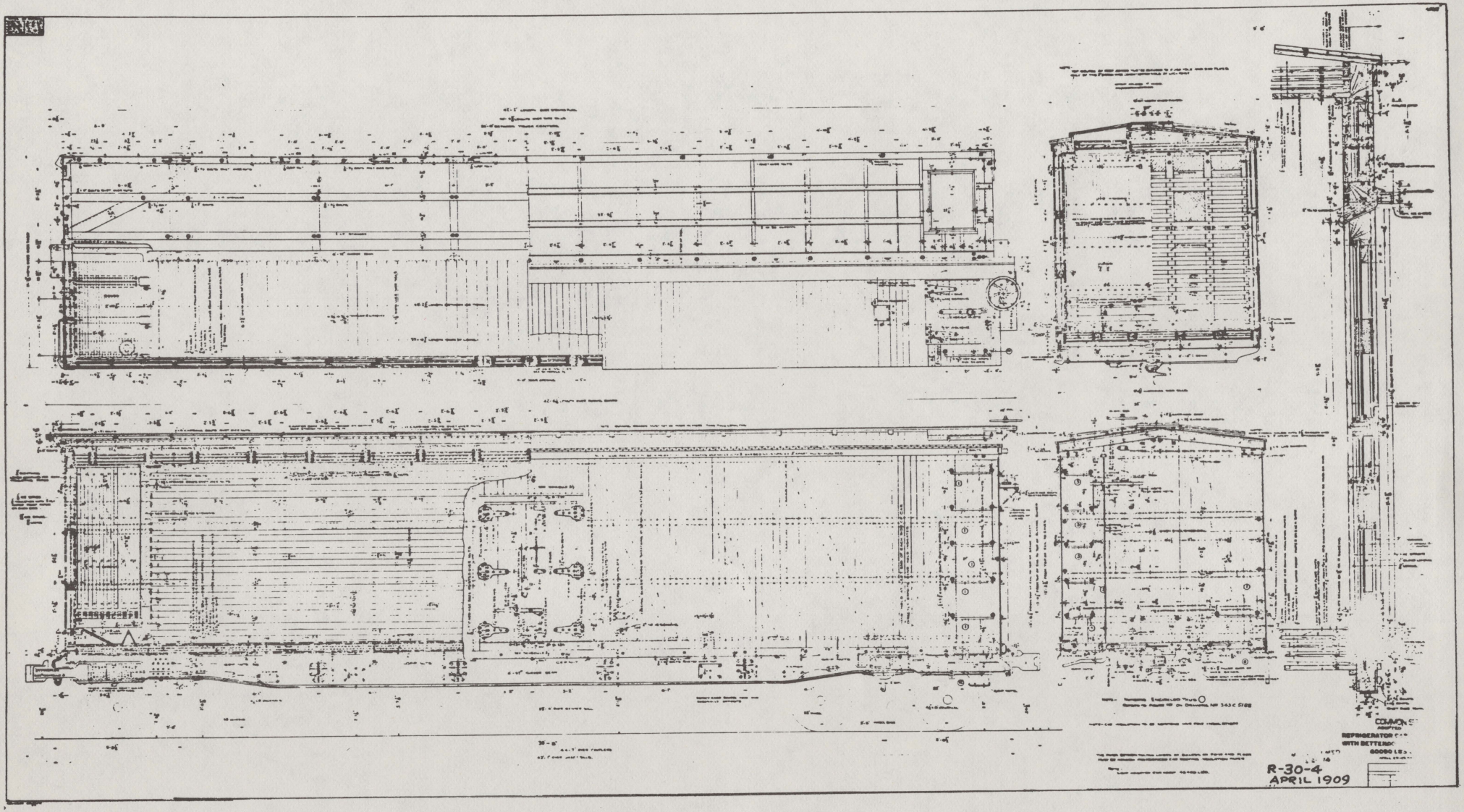
FOR VULCAN TRUCK SIDE FRAME AND BRAKE HANGER PIN AND JOURNAL BOX BOLTS SEE SCHEDULE 12.

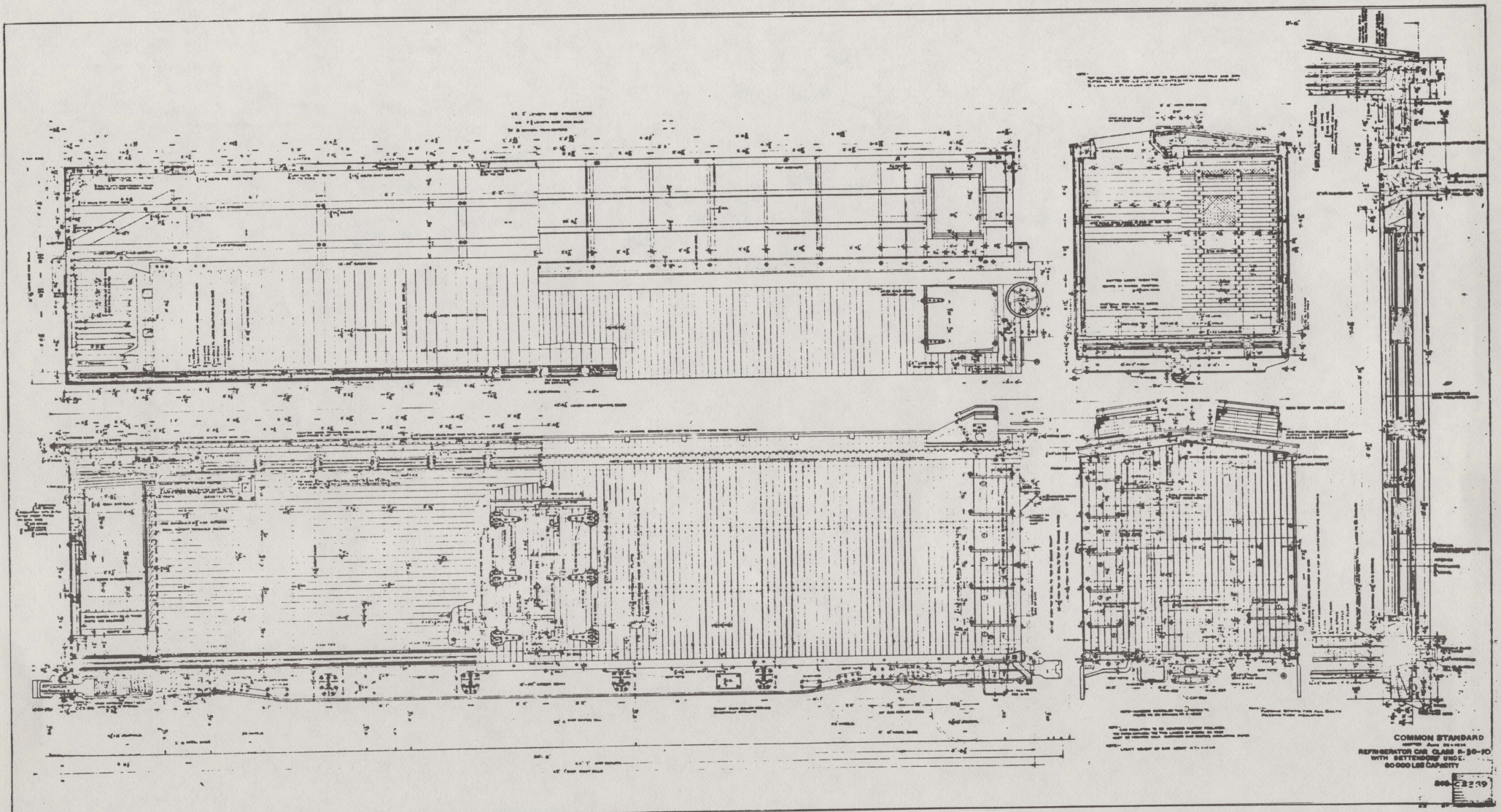
COMMON STANDARD
ADOPTED
TRUCK WITH VULCAN SIDE FRAME
& BARBER ROLLER DEVICE

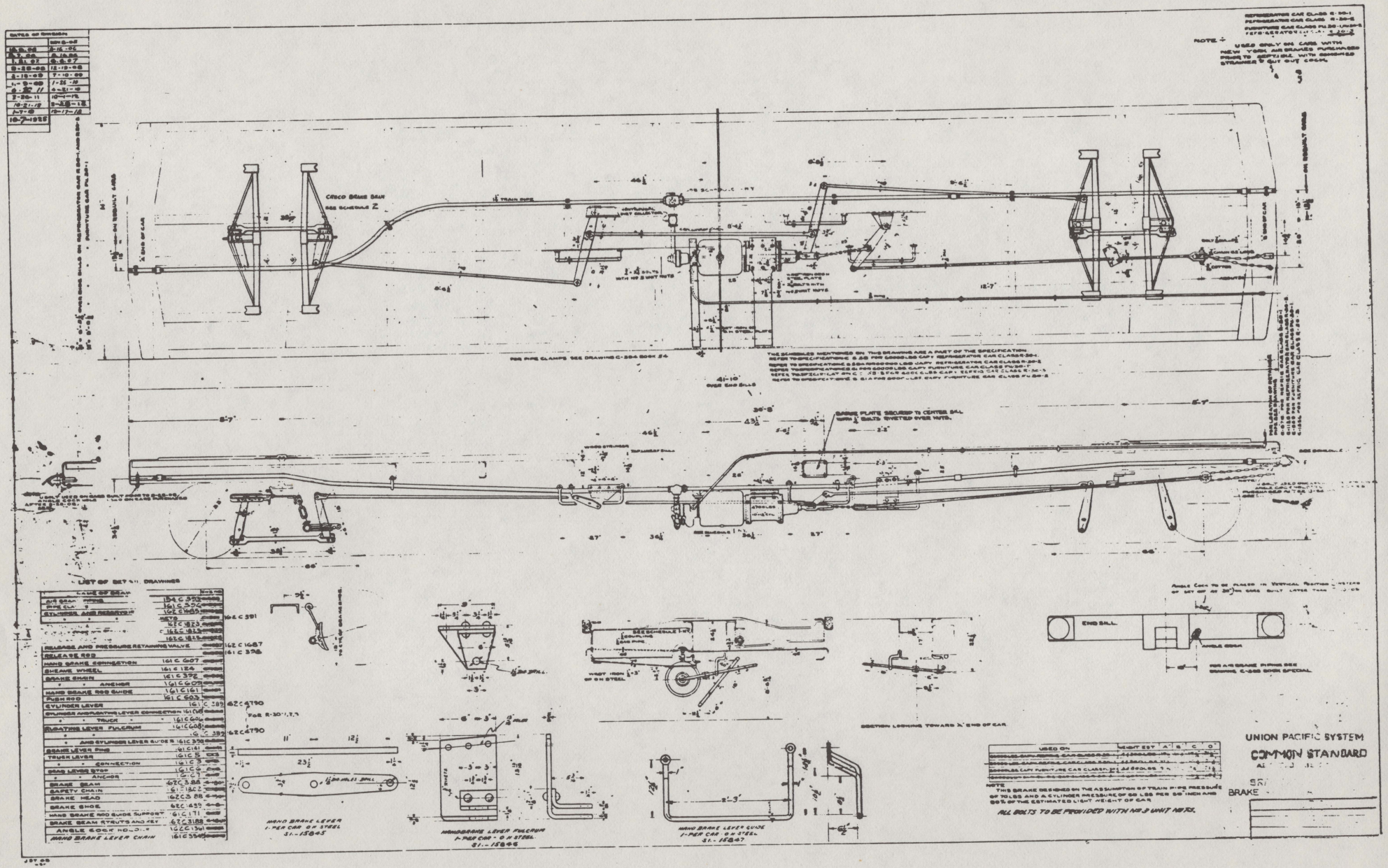
BOOK
423-C-2232

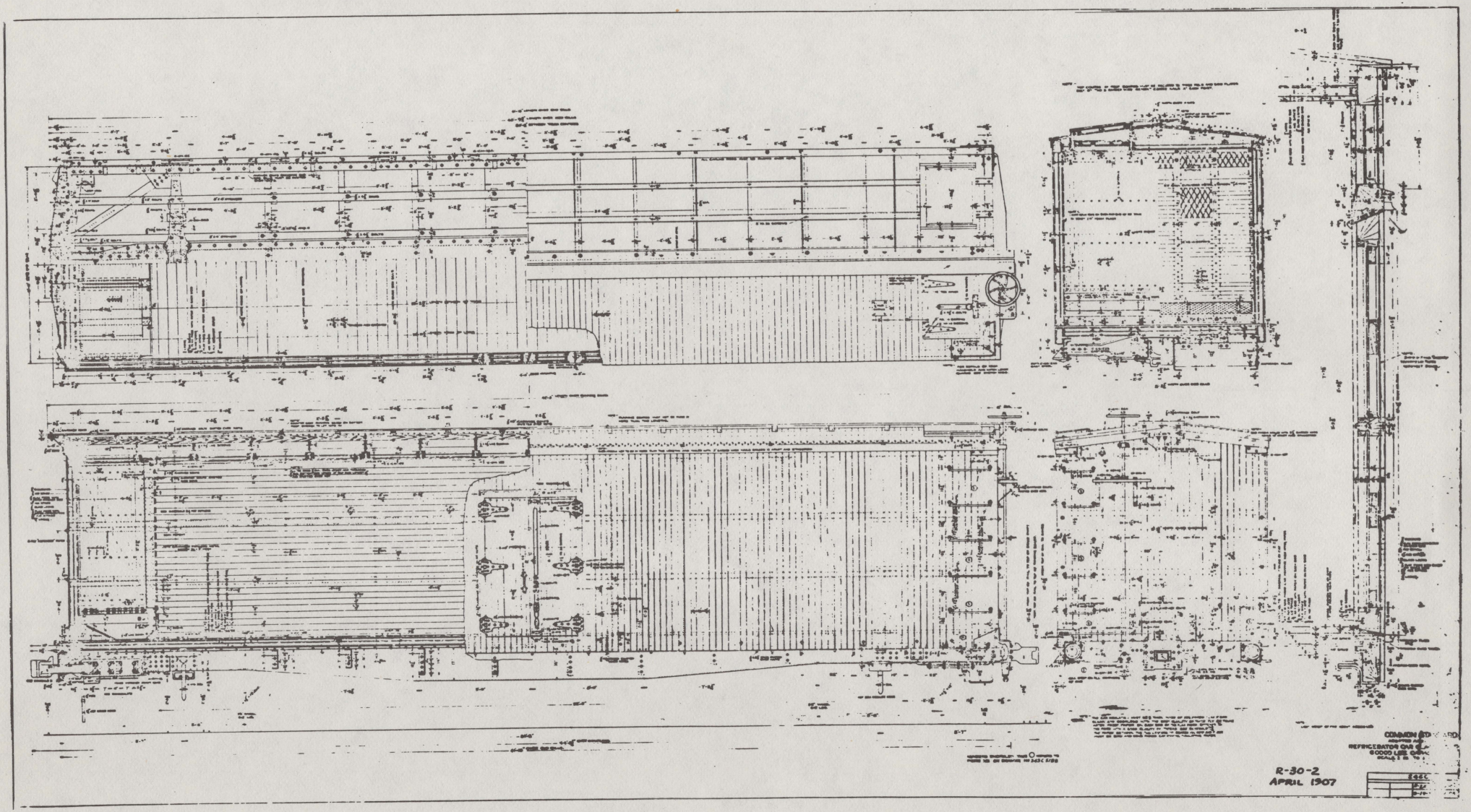



SECTION AT BOLSTER
SECTION AT NEEDLE BEAM
END VIEW
UNDERFRAME

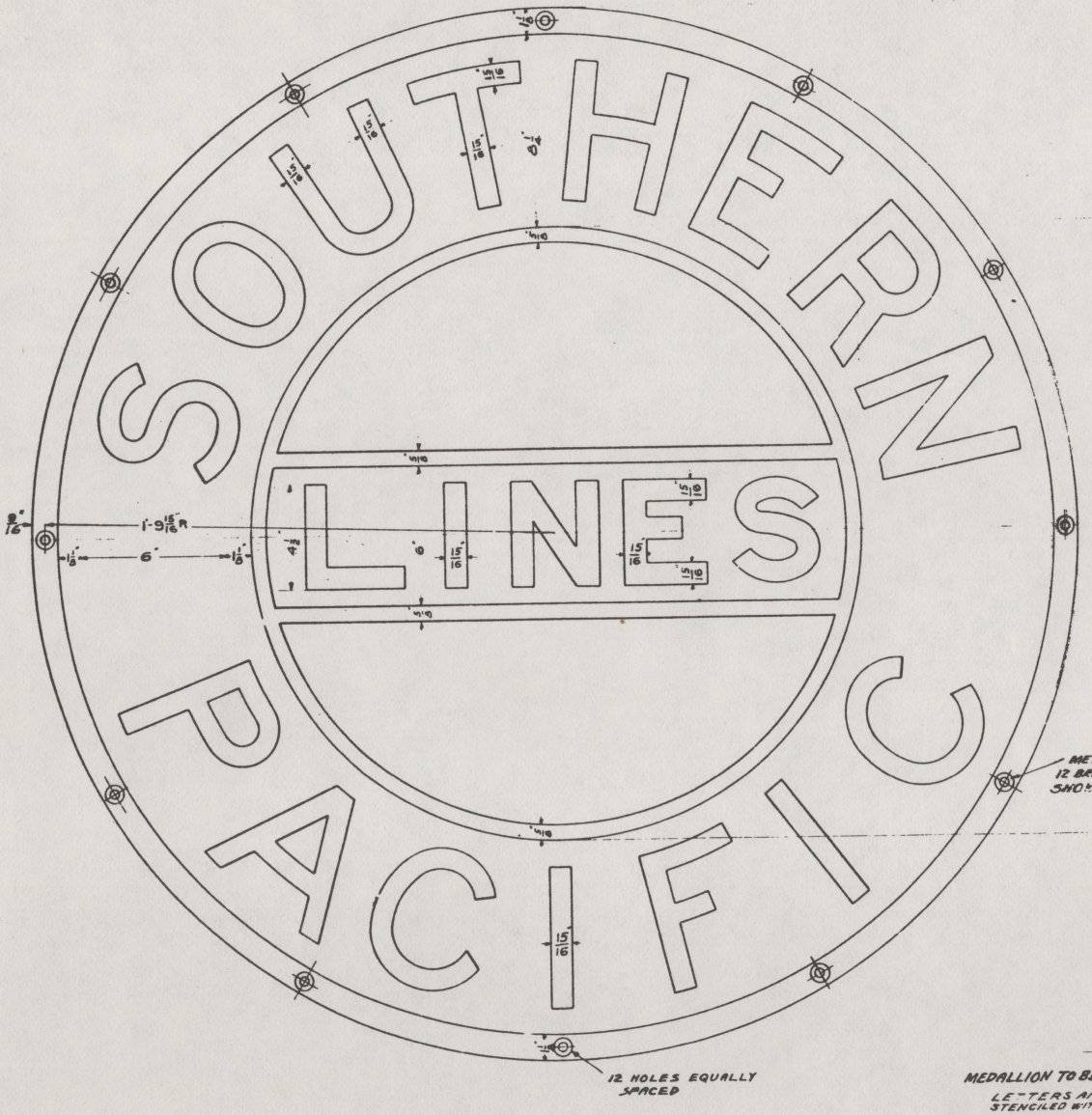

R-30-4
APRIL 1909


COMMON STANDARD
REFRIGERATOR CAR CLASS R-30-10
WITH BETTENDORF TRUCKS
80 000 LBS CAPACITY


UNION PACIFIC SYSTEM
COMMON STANDARD
SR
BRAKE
NOTE
THIS BRAKE DESIGNED ON THE ASSUMPTION OF TRAIN PIPE PRESSURE OF 70 LBS AND A CYLINDER PRESSURE OF 50 LBS PER SQ INCH AND 80% OF THE ESTIMATED LIGHT WEIGHT OF CAR
ALL BOLTS TO BE PROVIDED WITH NO 3 UNIT NUTS.
LIST OF SET 'A' DRAWINGS
RELEASE ROD
HAND BRAKE CONNECTION
SHEAVE WHEEL
BRAKE CHAIN
HAND BRAKE ROD GUIDE
PUSH ROD
EQUALIZING LEVER
TRUCK
EQUALIZING LEVER FULCRUM
BRAKE LEVER PIN
TRUCK LEVER
BRAKE BEAM
SAFETY CHAIN
BRAKE HEAD
BRAKE SHOE
BRAKE BEAM STRUTS AND KEY
ANGLE COCK HOLDER
HAND BRAKE LEVER CHAIN
HAND BRAKE LEVER
1-PER CAR - D.H. STEEL
81.-15845
HAND BRAKE LEVER FULCRUM
1-PER CAR - D.H. STEEL
81.-15846
HAND BRAKE LEVER GUIDE
1-PER CAR - D.H. STEEL
81.-15847
SECTION LOOKING TOWARD 'A' END OF CAR
END SILL
ANGLE COCK
REAR BRAKE PIPING SEE DRAWING C-388 BOOK SPECIAL
Crocco Brake Beam
See Schedule Z
1 1/4 TRAIN PIPE
BRAKE PLATE SECURED TO CENTER SILL WITH 3/4 BOLTS RIVETED OVER NUTS.
FOR PIPE CLAMPS SEE DRAWING C-384 BOOK 54
DATES OF REVISION
10-7-1925


R-30-2
APRIL 1907

FOR USE ON REFRIGERATOR CARS



METAL MEDALLION TO BE EQUIPPED WITH 12 BRASS GROMMETS EQUALLY SPACED AS SHOWN SUITABLE FOR No. 16 WOOD SCREWS

MATERIAL FOR METAL MEDALLION

NO. 18 U.S. GAUGE STEEL
VITREOUS ENAMEL
COLORS TO CONFORM WITH
COMMON STANDARD COLOR CARD
WHITE NO. 12-B
BLACK NO. 216
"METAL MEDALLION TO BE USED ON NEW AND REBUILT REFRIGERATOR CARS" WITH WOOD SHEATHING
WEIGHT EACH 23 LBS.
MEDALLIONS TO BE STENCILED AS SHOWN ON STEEL SHEATHED CARS.

METAL MEDALLIONS FURNISHED BY RAILROAD CO
SEE SCHEDULE — 7 3/8

MEDALLION TO BE PAINTED AS FOLLOWS

LETTERS AND BORDER LINES TO BE STENCILED WITH WHITE LEAD - COLOR No 12
BACKGROUND TO BE STENCILED WITH LAMP BLACK IN OIL - COLOR No 17.
MEDALLION TO BE GIVEN ONE COAT OF A GOOD QUALITY OUTSIDE WEARING VARNISH.

SCALE 4" = 1-FT.

UNION PACIFIC SYSTEM

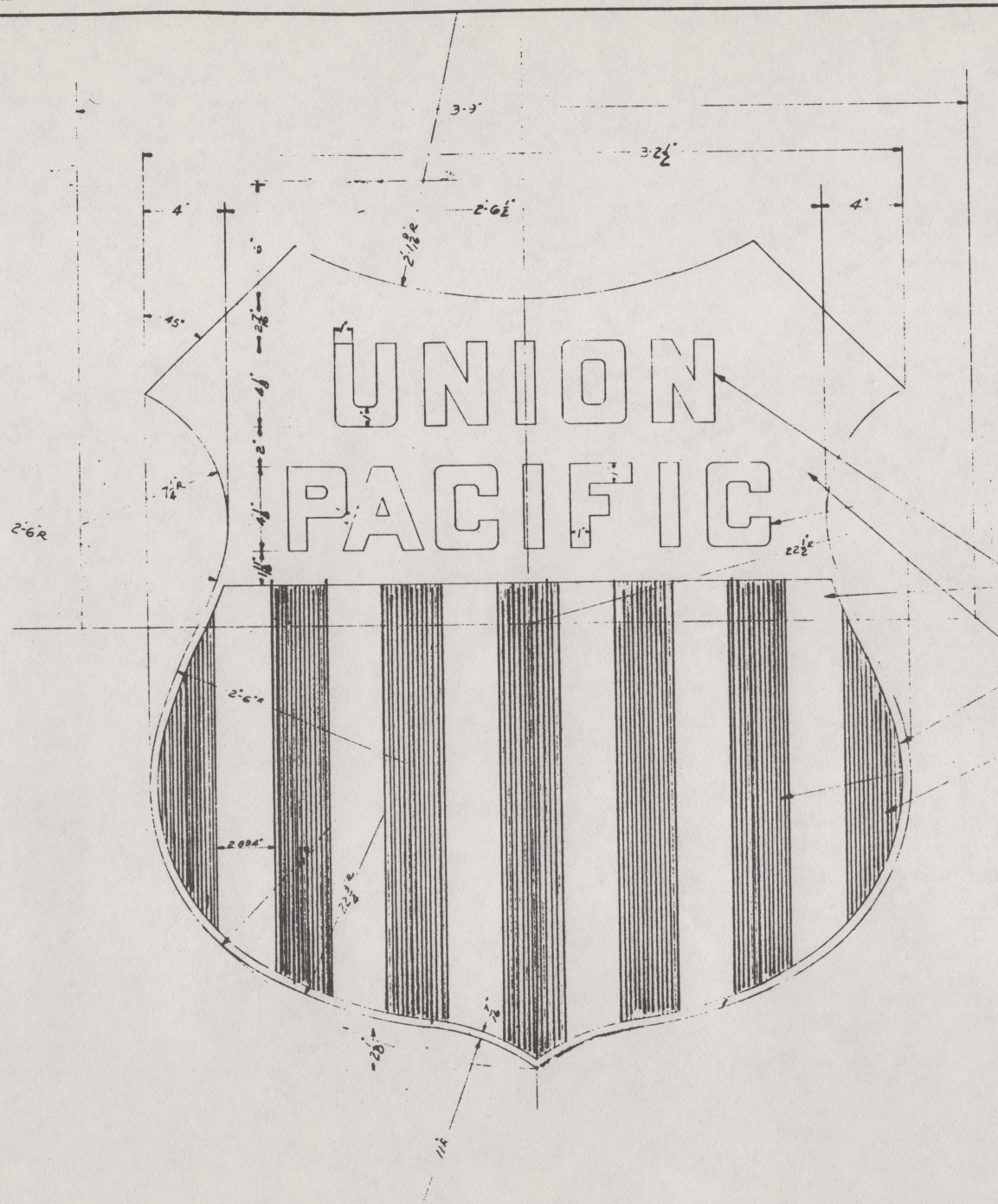
COMMON STANDARD
ADOPTED JAN 19 1922

PAINTING, LETTERING & NUMBERING
MEDALLION S.P.

303 C-3072			
2-7-36	7-27-29	1-4-28	[illegible]
	10-2-29	2-20-28	11-30-27

CLASS	USED ON
	FOR USE ON REFRIGERATOR CARS

ISSUE	DATE	REVISION
B	7-28-[illegible]	REDRAWN & "THE OVERLAND ROUTE" OMITTED



WHITE — STENCIL WHITE PANELS WITH TWO COATS OF WHITE LEAD COLOR NO. 12.
STENCIL THE WORDS "UNION PACIFIC" WITH ONE COAT OF WHITE LEAD COLOR NO. 12.

BLUE — STENCIL BLUE FIELDS AND BORDER LINES WITH ONE COAT OF ULTRA MARINE BLUE COLOR NO 218-A

VERMILION — STENCIL VERMILION PANELS WITH TWO COATS OF VERMILION COLOR NO 205-A.

OBSOLETE
SEE NEW DRG.
SAME NUMBER
303-C-3073-C

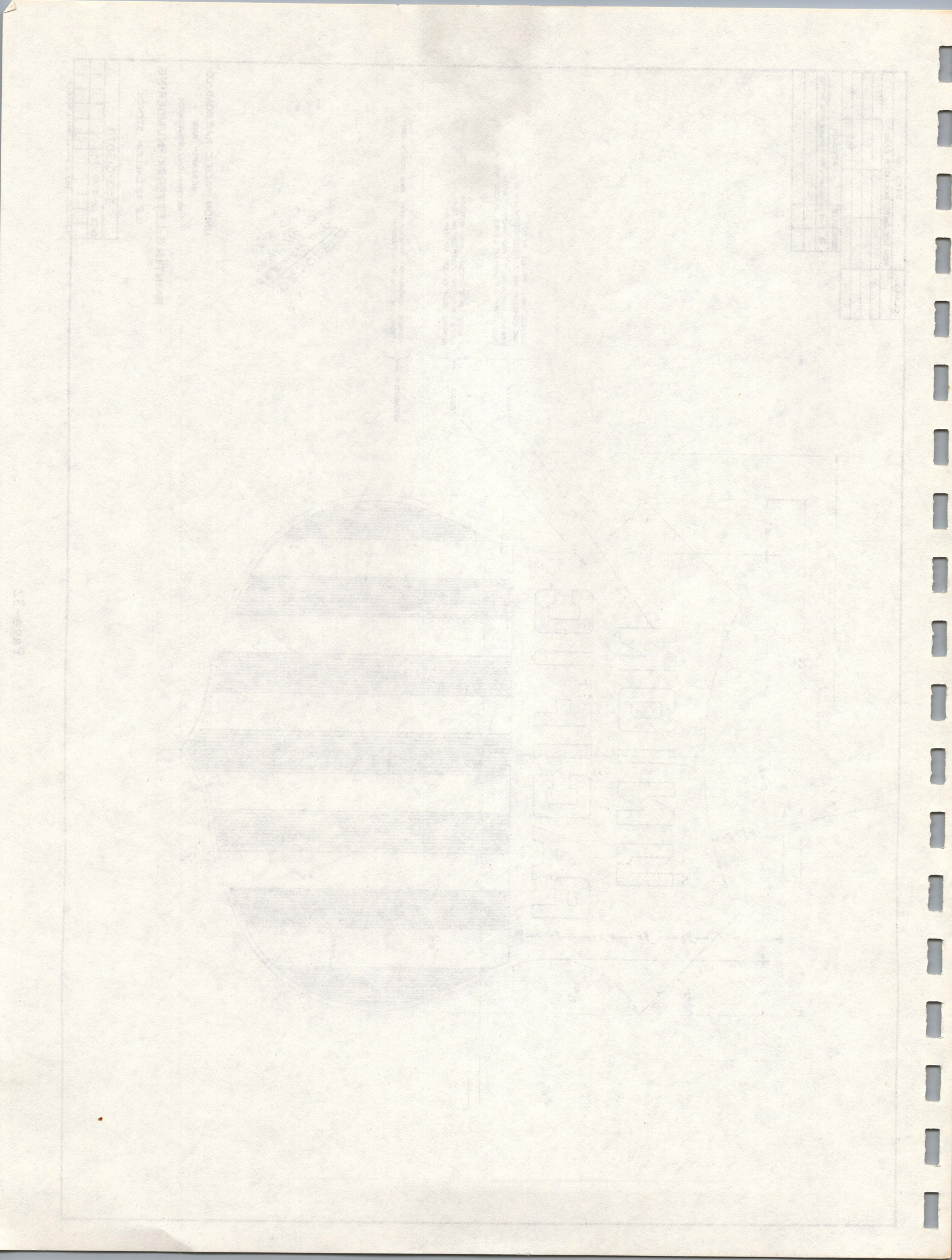
UNION PACIFIC RAILROAD CO.
RESEARCH AND
MECHANICAL STANDARDS

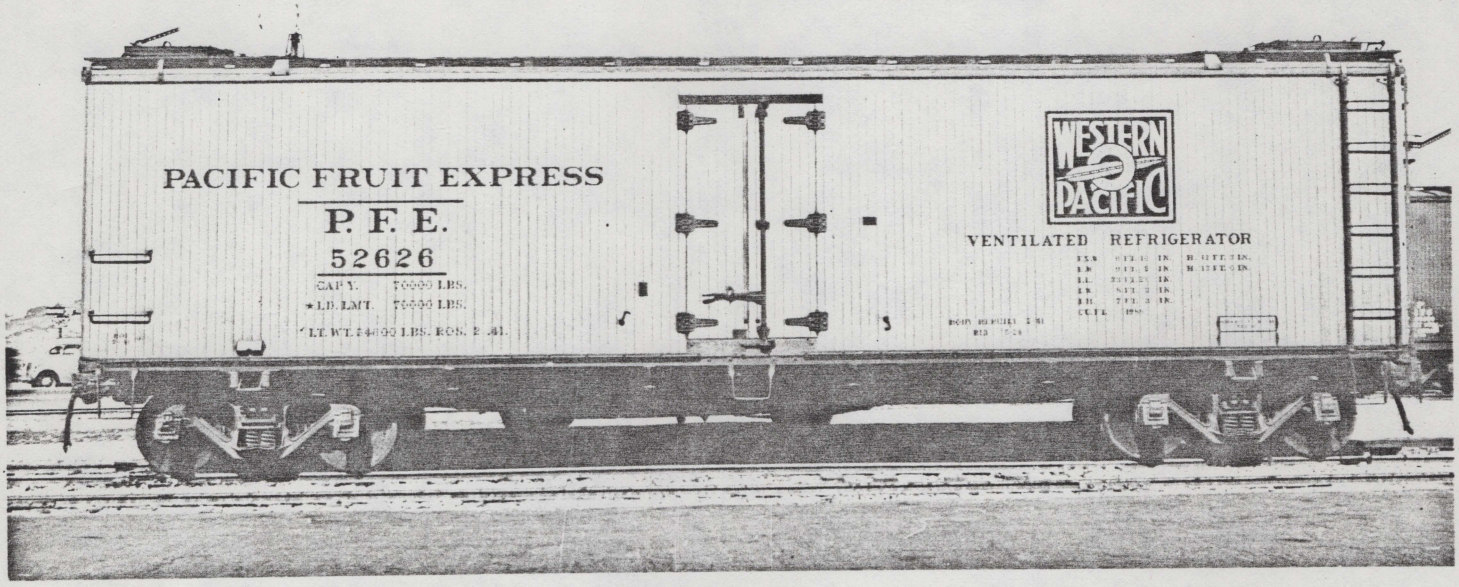
PAINTING-LETTERING-NUMBERING

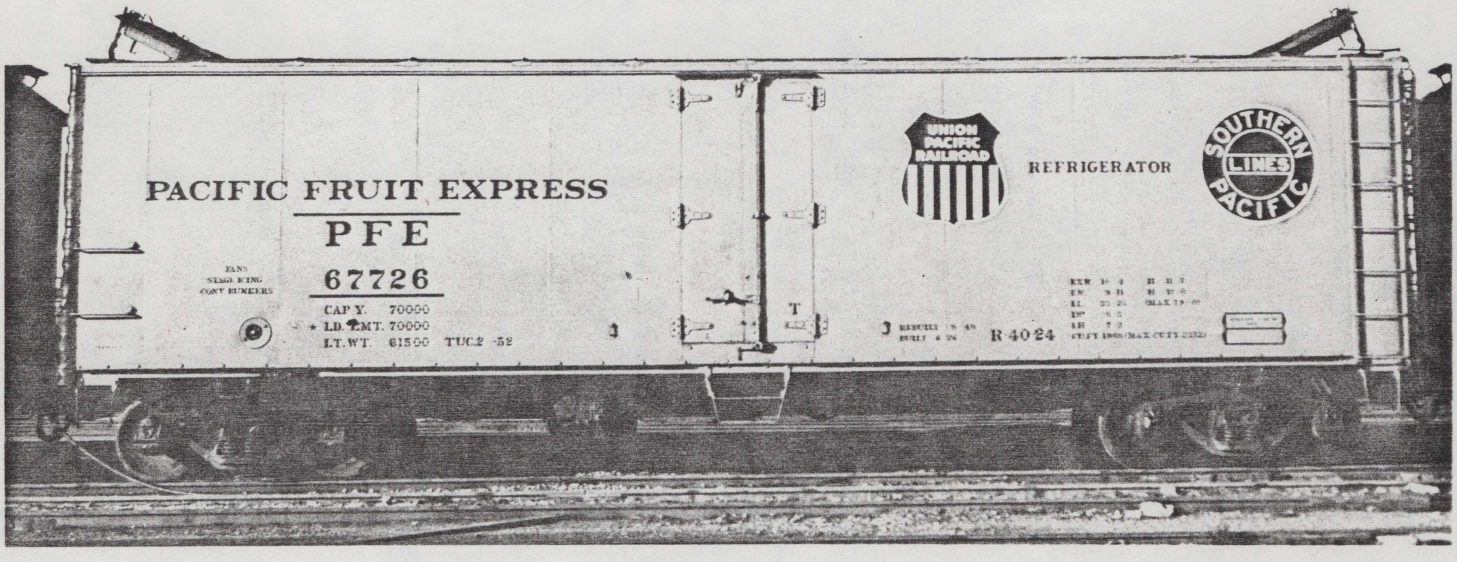
U.P. MEDALLION STENCIL

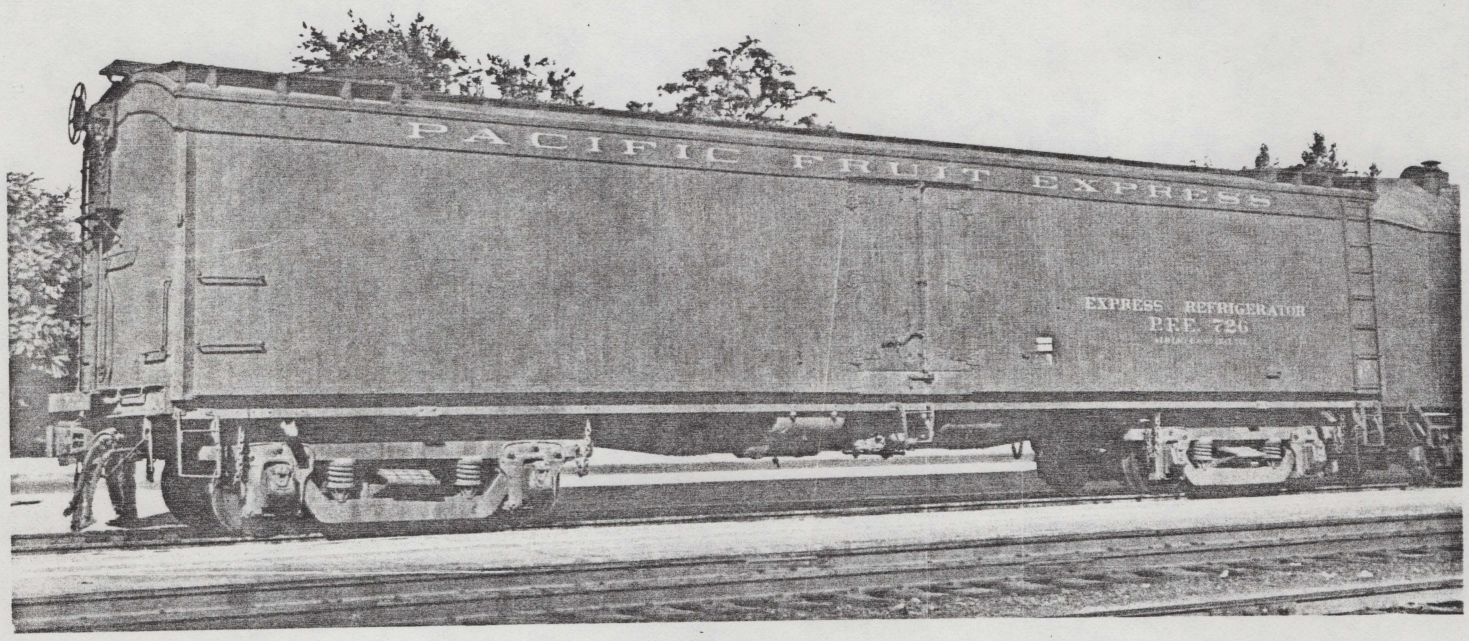
303-C-3073		
DATE 8-15-40	B	

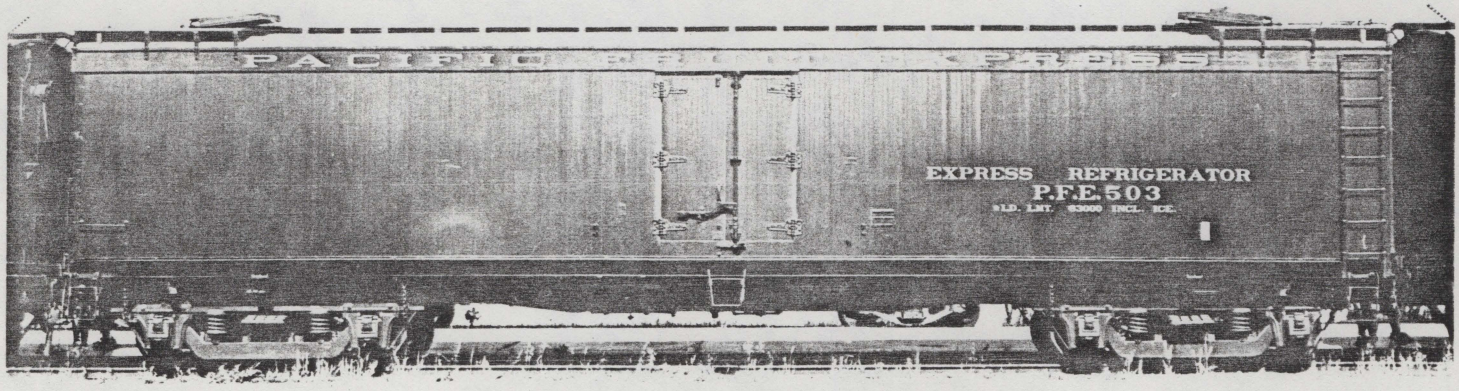
REF. BACK 303 C 5710 & 303 C 3073-A

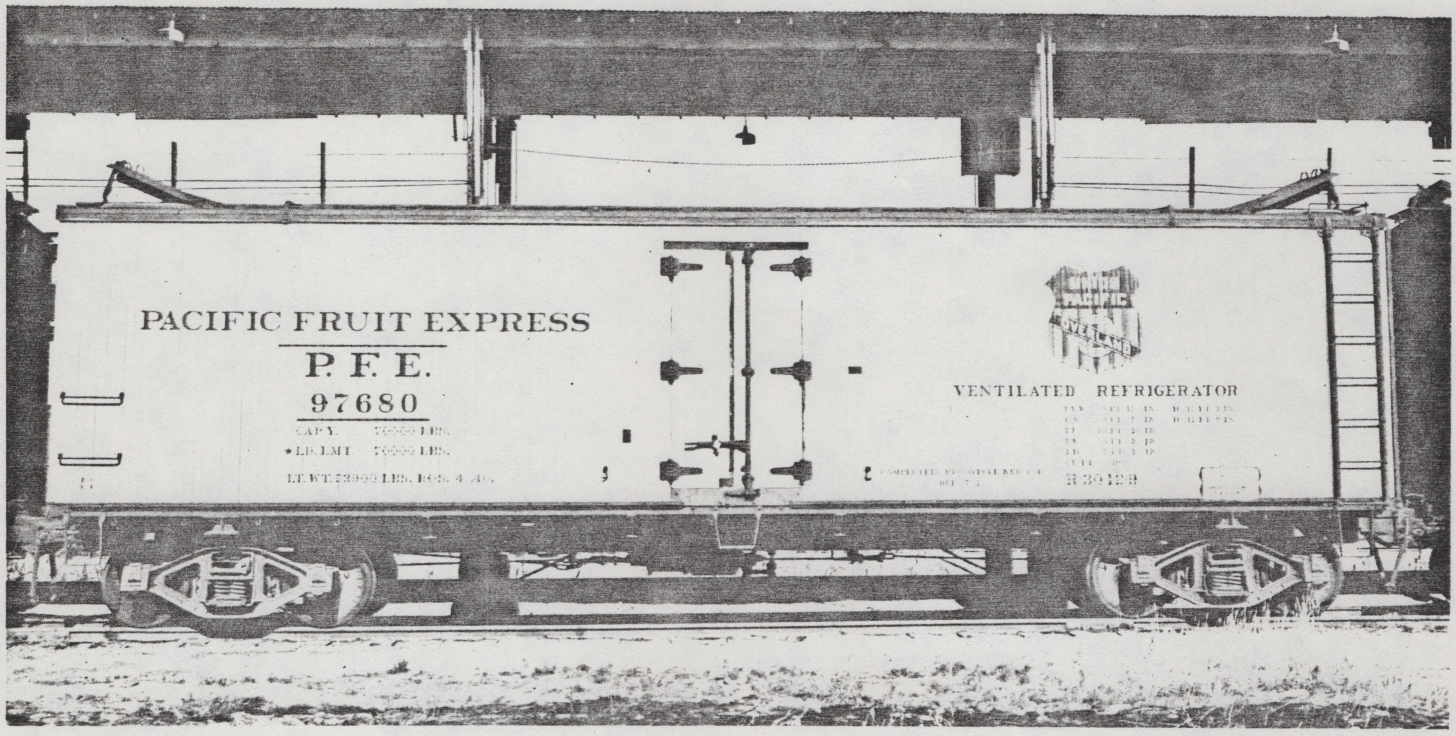


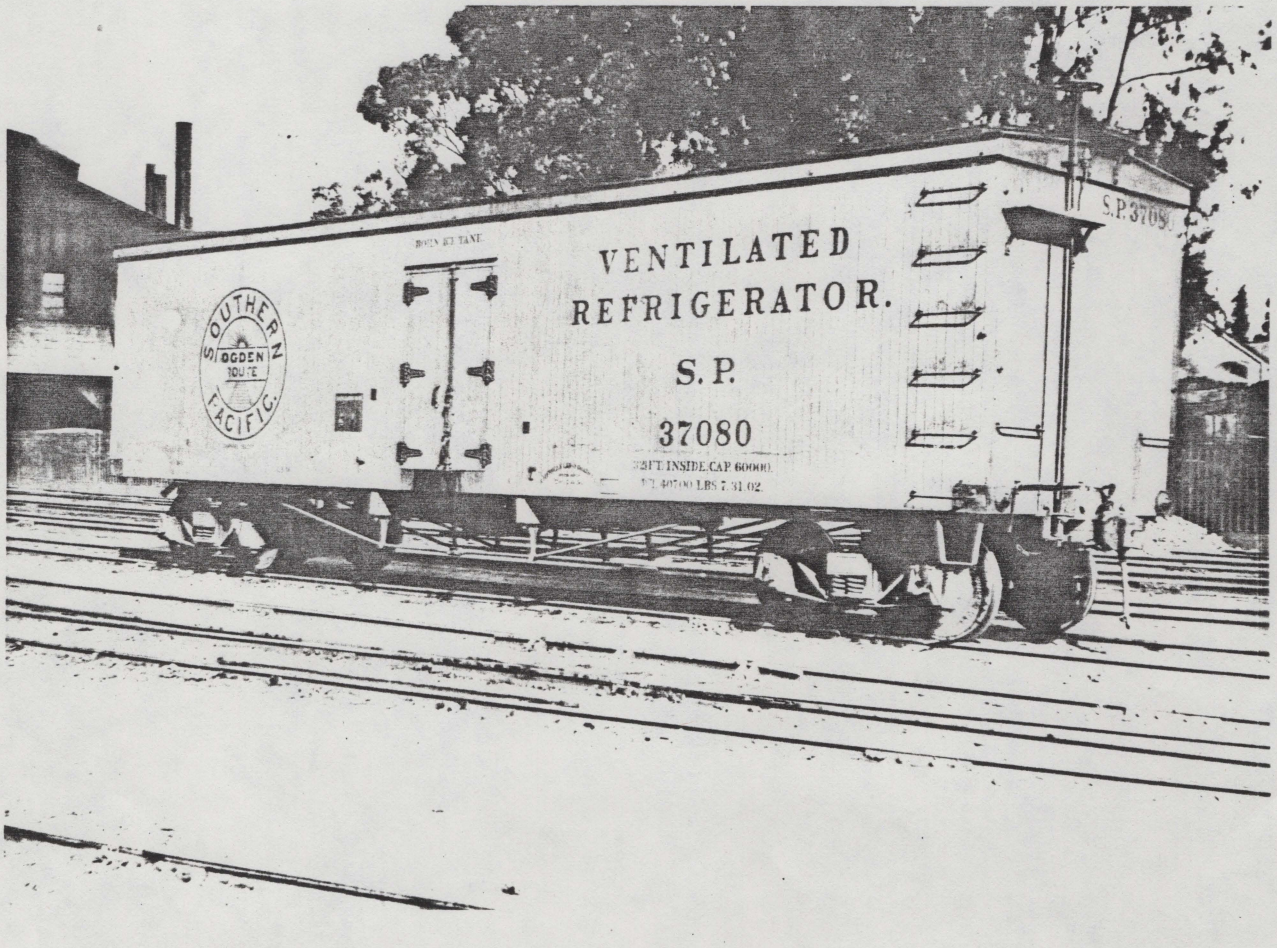

PACIFIC FRUIT EXPRESS
P. F. E.
52626
CAP Y. 70000 LBS.
★LD. LMT. 70000 LBS.
LT. WT. 74000 LBS. RDS. 2-41.
WESTERN PACIFIC
VENTILATED REFRIGERATOR

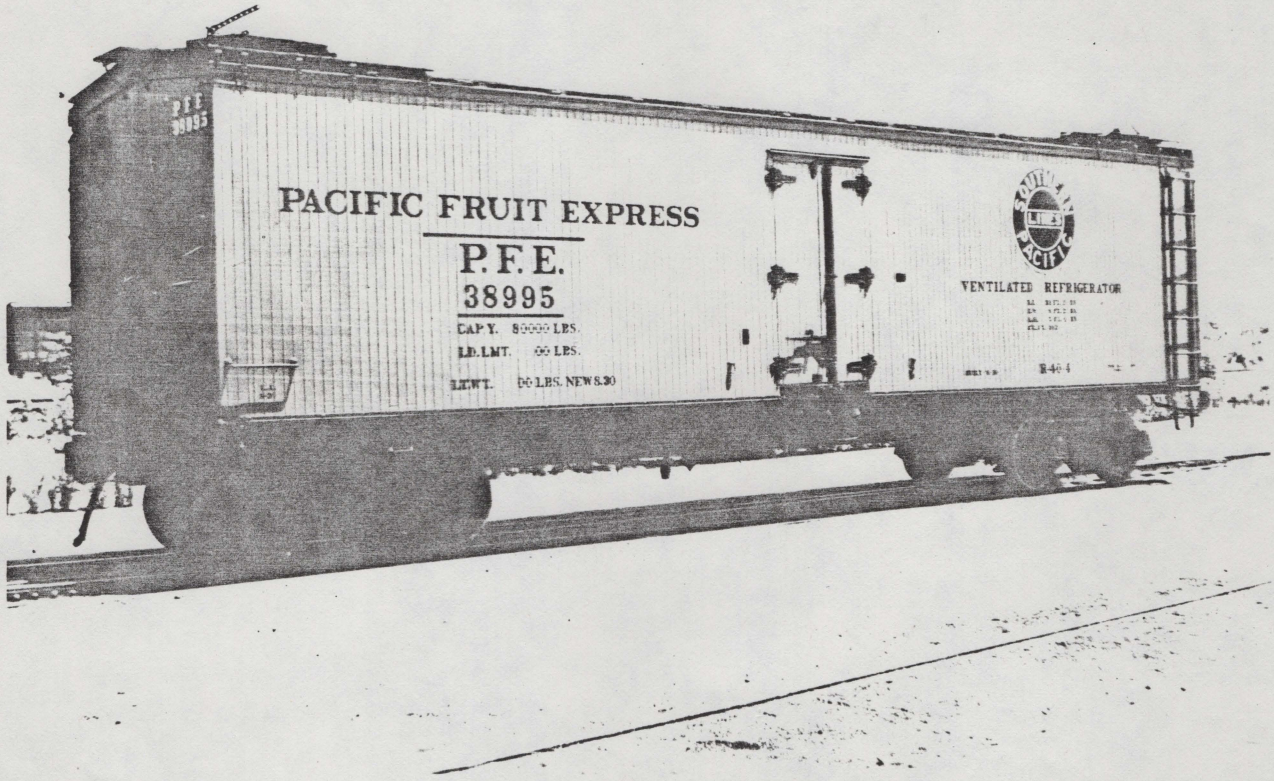

PACIFIC FRUIT EXPRESS
PFE
67726
CAP Y. 70000
★ LD. LMT. 70000
LT. WT. 61500 TUC2 -52
UNION PACIFIC RAILROAD
REFRIGERATOR
SOUTHERN PACIFIC LINES
R 4024

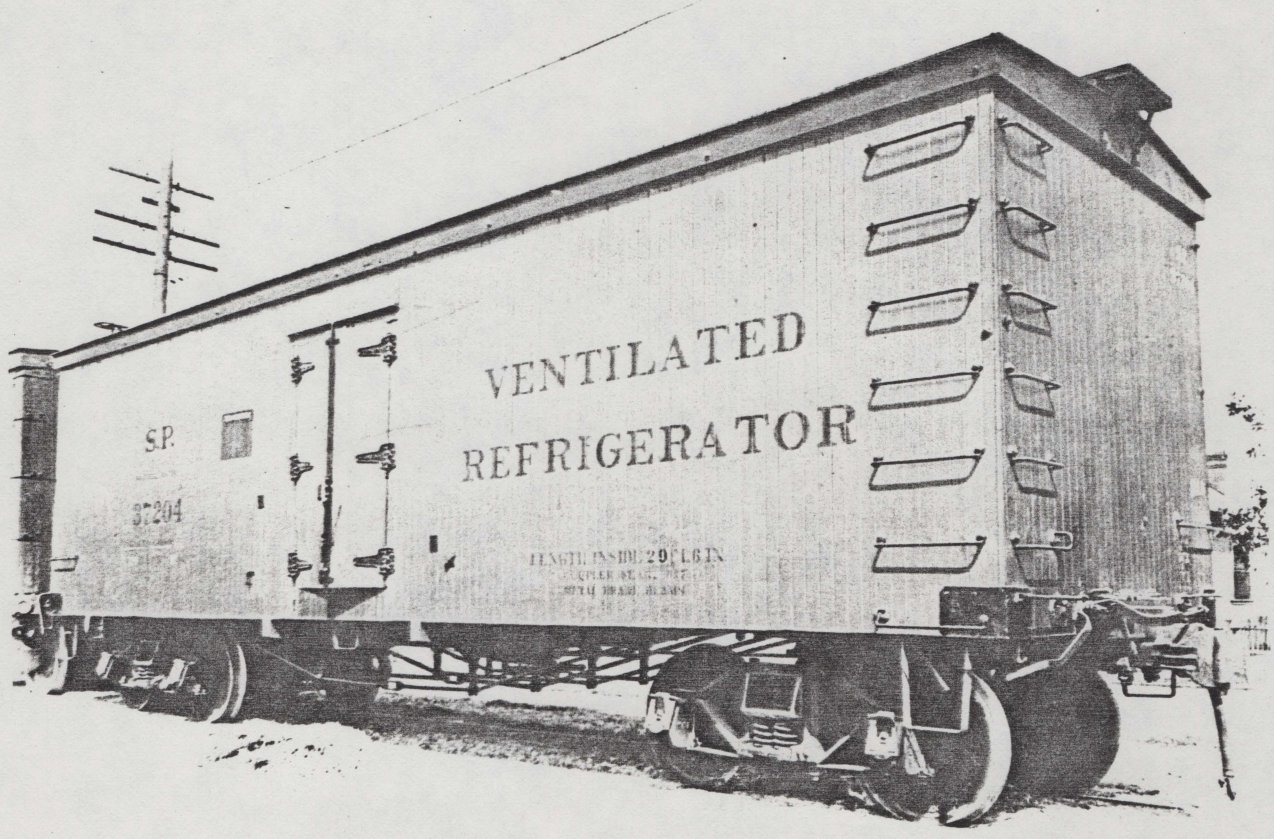

PACIFIC FRUIT EXPRESS
EXPRESS REFRIGERATOR
P.F.E. 726

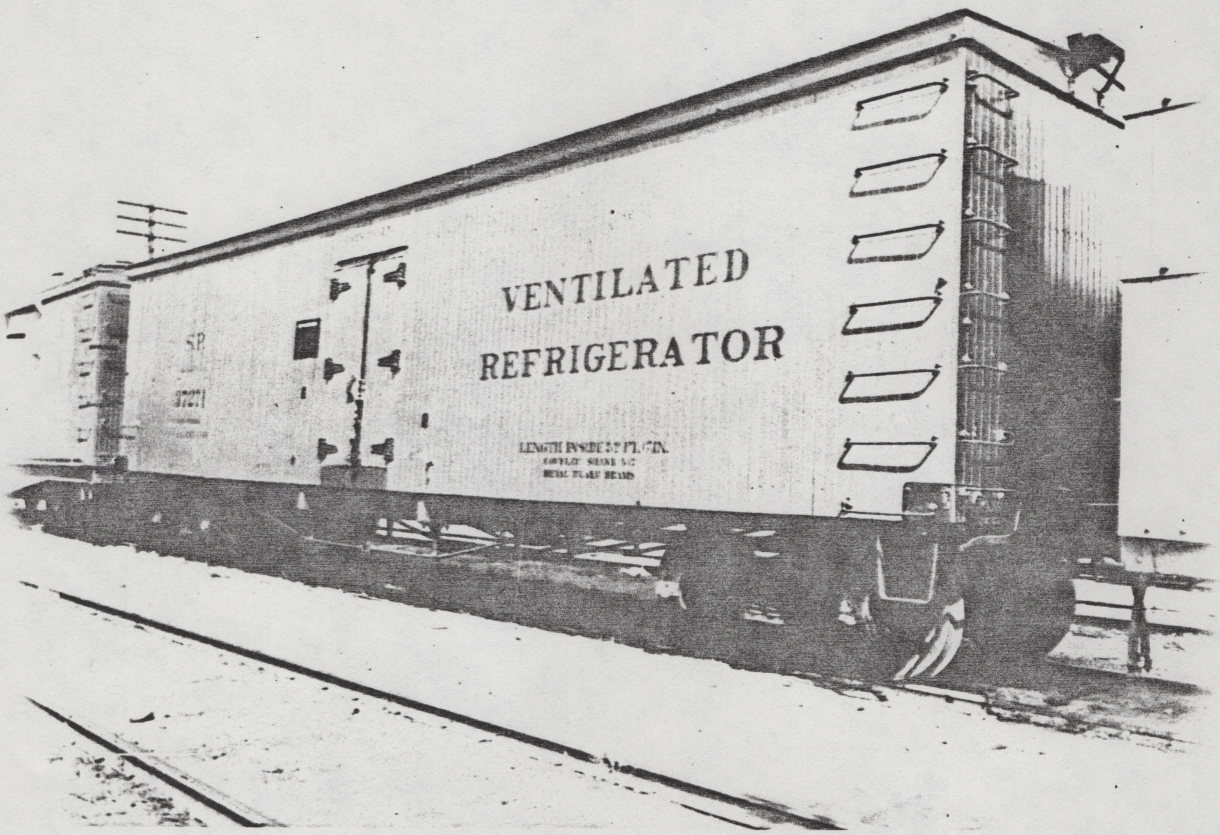

EXPRESS REFRIGERATOR
P.F.E. 503

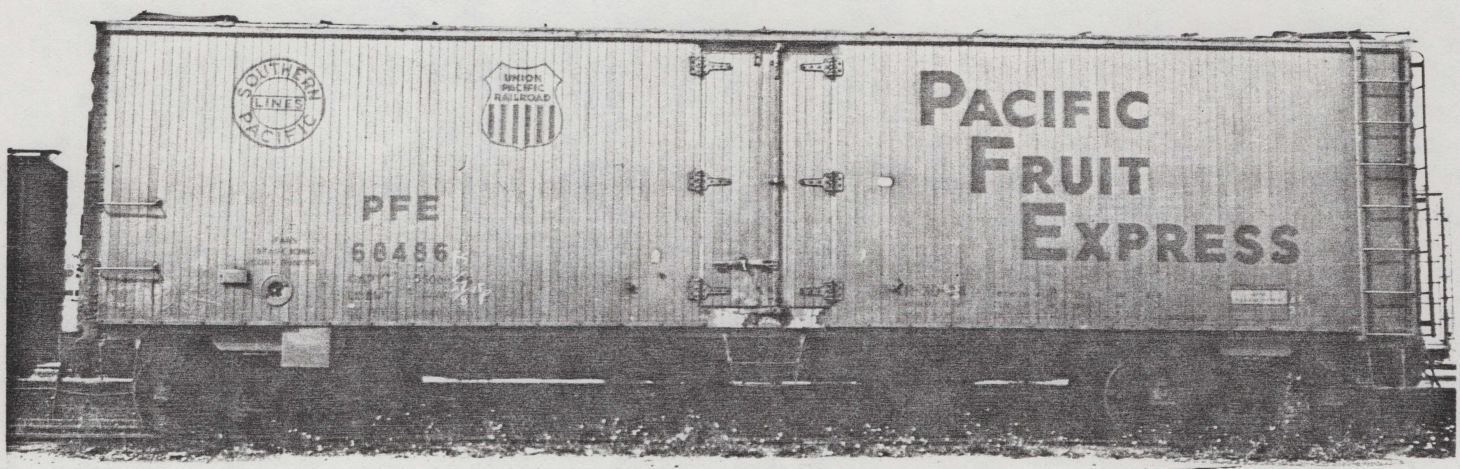

PACIFIC FRUIT EXPRESS
P.F.E.
97680
VENTILATED REFRIGERATOR

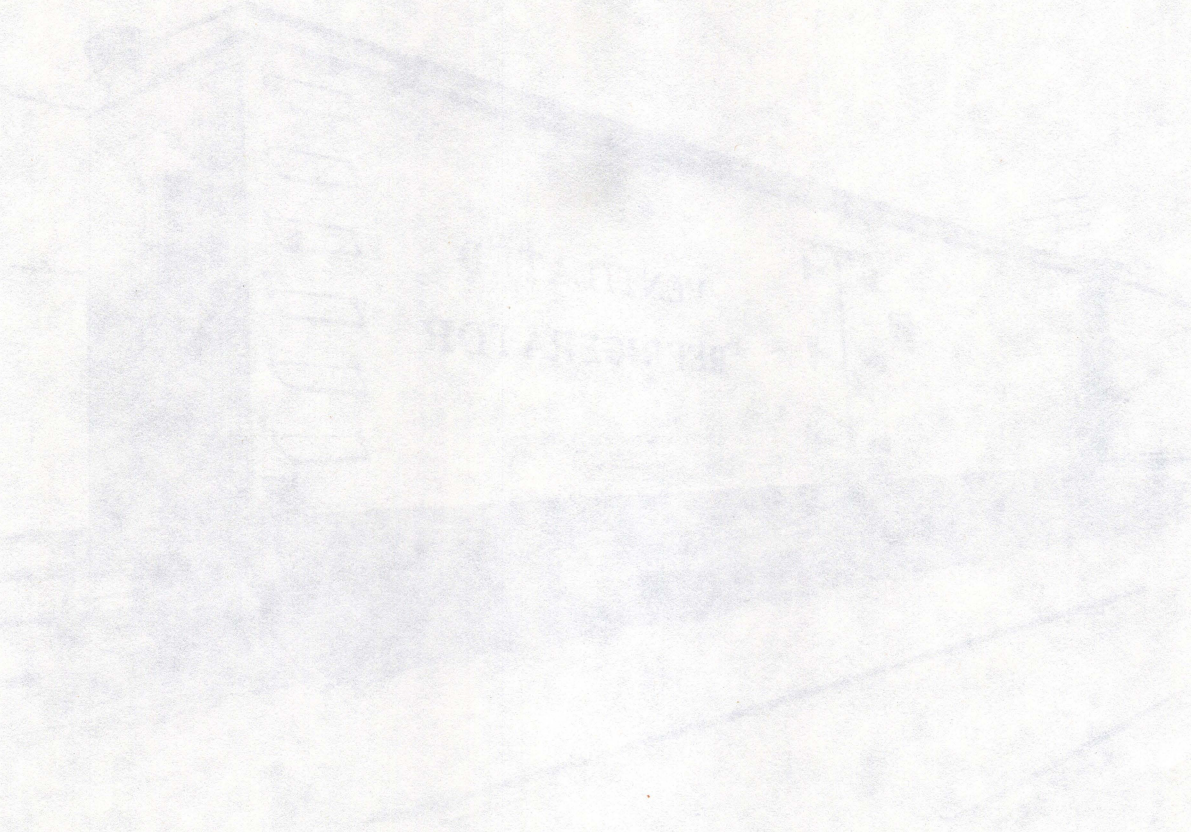

VENTILATED
REFRIGERATOR.
S.P.
37080
SOUTHERN PACIFIC
OGDEN ROUTE

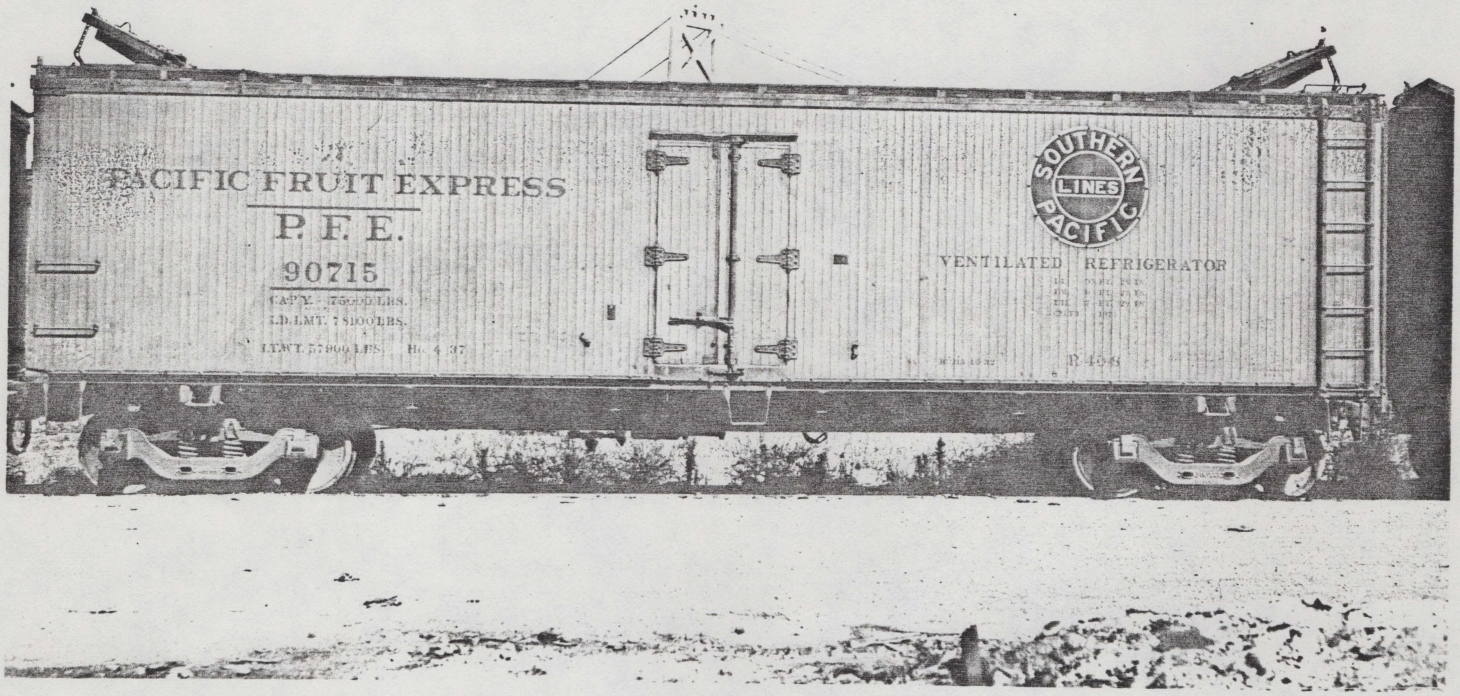

PACIFIC FRUIT EXPRESS
P.F.E.
38995
CAP'Y. 80000 LBS.
LD.LMT. 86 LBS.
LT.WT. 86 LBS. NEW 8-30
VENTILATED REFRIGERATOR

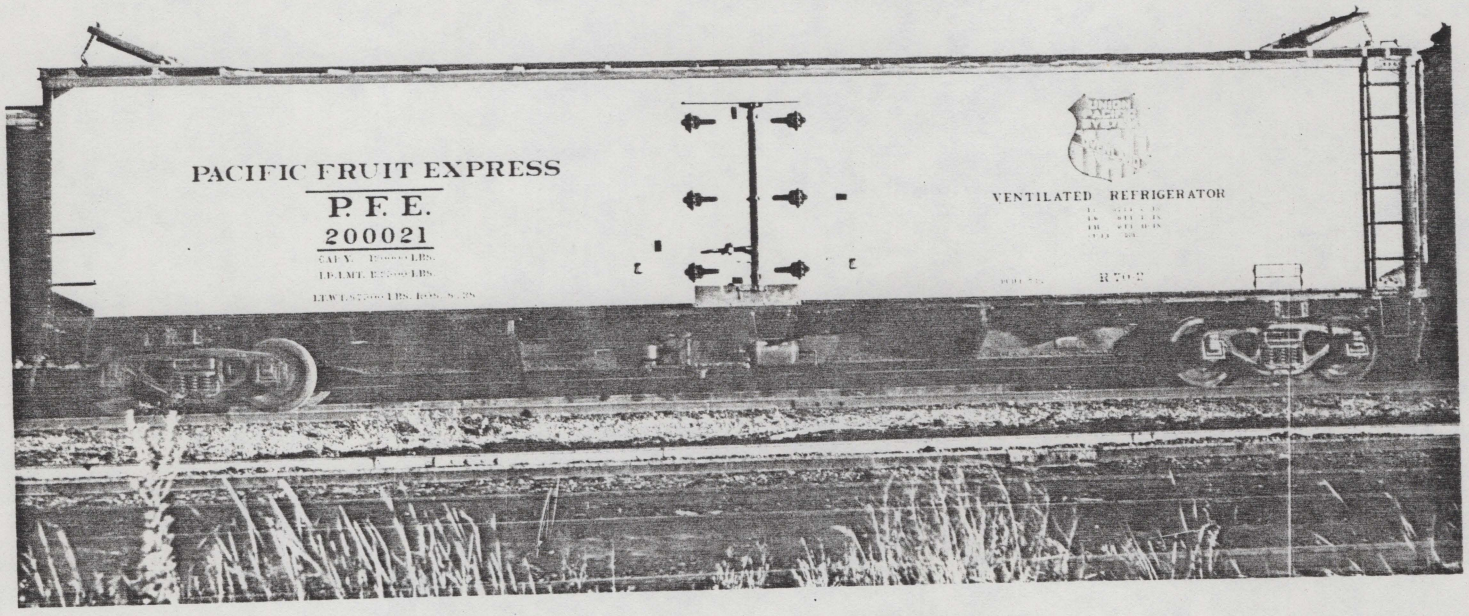

VENTILATED
REFRIGERATOR
S.P.
37204

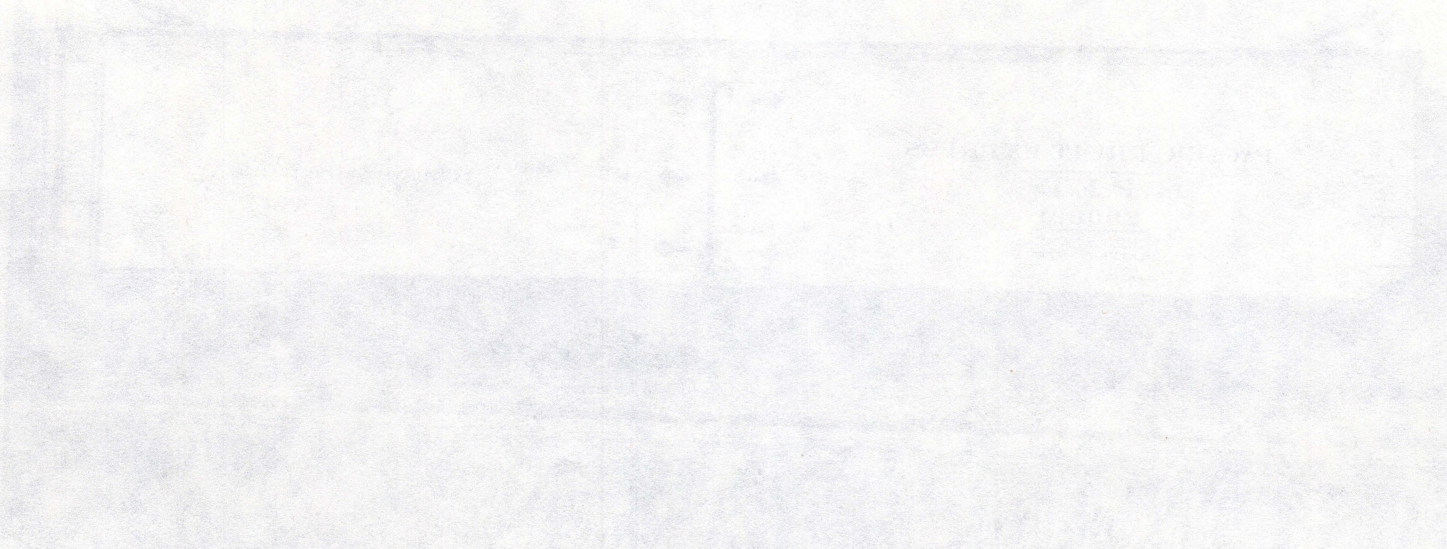

VENTILATED
REFRIGERATOR

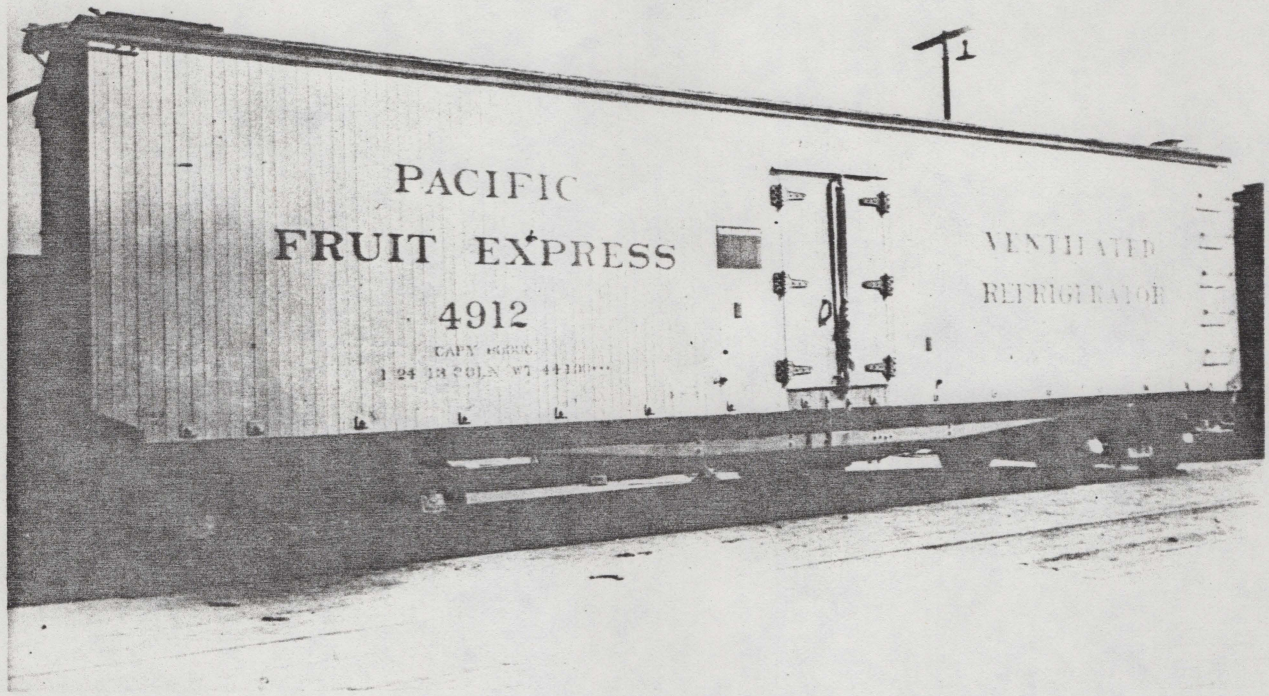

SOUTHERN PACIFIC LINES
UNION PACIFIC RAILROAD
PFE
68486
PACIFIC
FRUIT
EXPRESS




PACIFIC FRUIT EXPRESS
P. F. E.
90715
SOUTHERN PACIFIC LINES
VENTILATED REFRIGERATOR

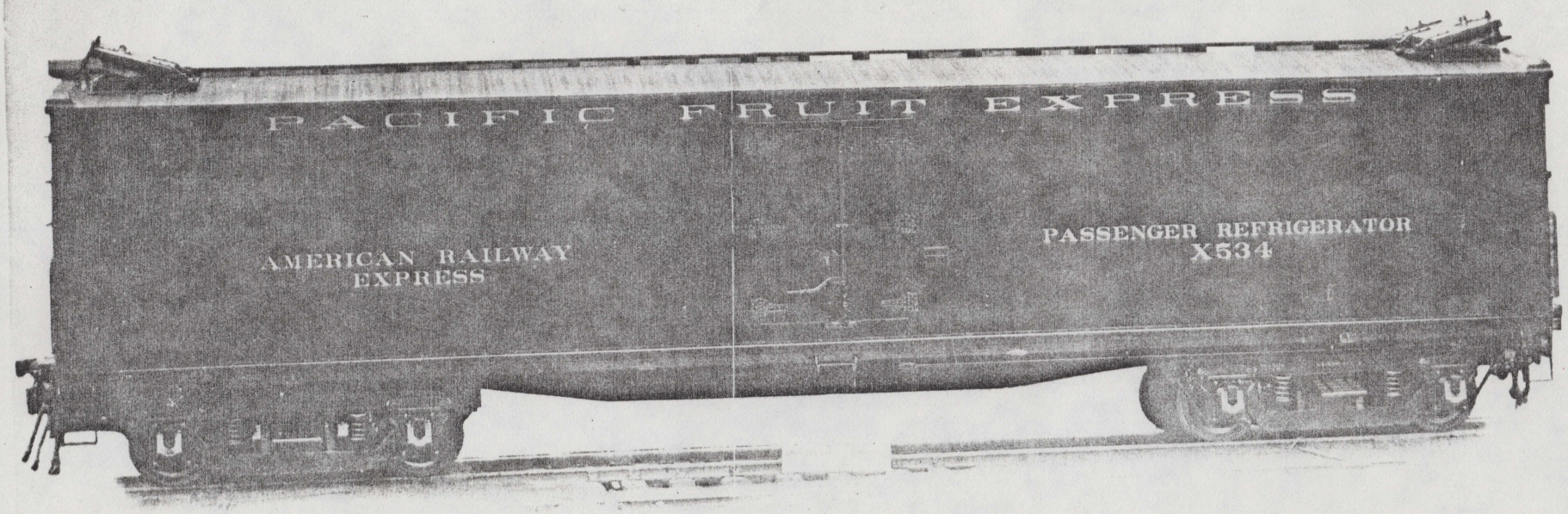

PACIFIC FRUIT EXPRESS
P. F. E.
200021
VENTILATED REFRIGERATOR




PACIFIC
FRUIT EXPRESS
4912

PACIFIC FRUIT EXPRESS
P.F.E.
100323
SOUTHERN LINES

PACIFIC FRUIT EXPRESS
P. F. E.
98619
SOUTHERN PACIFIC LINES
UNION PACIFIC
VENTILATED
REFRIGERATOR
R-30-9


PACIFIC FRUIT EXPRESS
AMERICAN RAILWAY
EXPRESS
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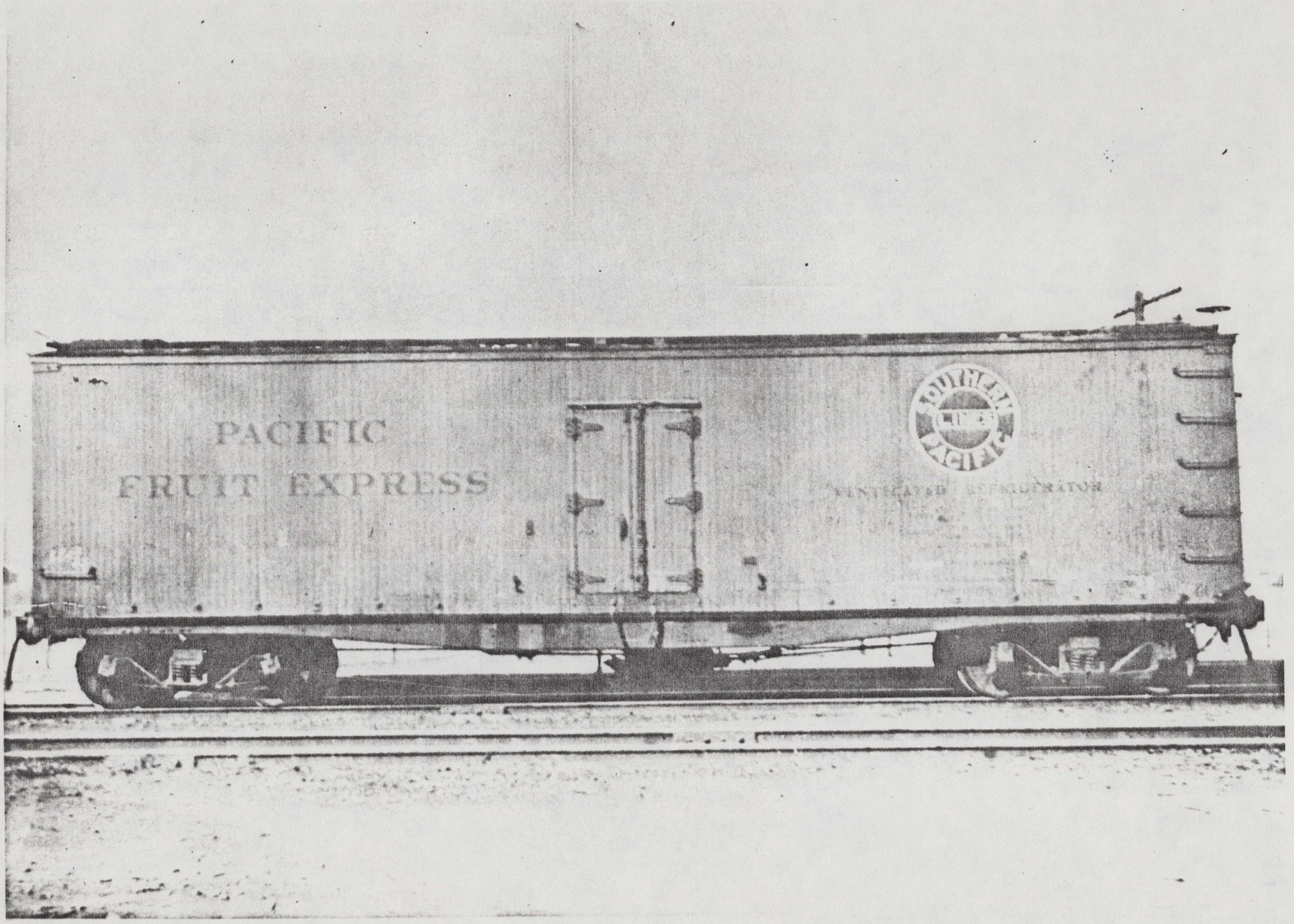
X534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